

Attachment 1

September 2024

CPS ENERGY AND SOUTH TEXAS ELECTRIC COOPERATIVE, INC.

Howard Road to San Miguel 345 kV Transmission Line Project Environmental Assessment and Alternative Route Analysis *Atascosa and Bexar Counties, Texas*

PROJECT NUMBER:

0247247

PROJECT CONTACT:

Lisa Barko Meaux

EMAIL:

lisa.barko@powereng.com

PHONE:

281-765-5507



This page left blank intentionally.

Howard Road to San Miguel 345 kV Transmission Line Project

PREPARED FOR: CPS ENERGY AND
SOUTH TEXAS ELECTRIC COOPERATIVE, INC.

PREPARED BY: POWER ENGINEERS, INC.
HOUSTON, TEXAS

This page left blank intentionally.

TABLE OF CONTENTS

1.0 DESCRIPTION OF THE PROPOSED PROJECT	1-1
1.1 Scope of the Project.....	1-1
1.2 Purpose and Need	1-5
1.3 Description of Proposed Design	1-5
1.3.1 Transmission Line Design	1-5
1.3.2 Typical Transmission Line Structures and Easements.....	1-6
1.3.3 Construction Schedule	1-6
1.4 Construction Considerations.....	1-6
1.4.1 Clearing and ROW Preparation	1-7
1.4.2 Structure Assembly and Erection	1-8
1.4.3 Conductor and Shield Wire Installation	1-8
1.4.4 Cleanup	1-8
1.5 Maintenance Considerations	1-8
1.6 Agency Actions	1-9
1.6.1 Public Utility Commission of Texas	1-10
1.6.2 United States Army Corps of Engineers.....	1-10
1.6.3 United States Fish and Wildlife Service.....	1-11
1.6.4 Federal Aviation Administration	1-11
1.6.5 Military Aviation and Installation Assurance Siting Clearinghouse	1-12
1.6.6 Texas Parks and Wildlife Department.....	1-13
1.6.7 Floodplain Management	1-13
1.6.8 Texas Commission on Environmental Quality.....	1-14
1.6.9 Texas Historical Commission	1-14
1.6.10 Texas Department of Transportation.....	1-14
1.6.11 Texas General Land Office	1-15
1.6.12 City of San Antonio	1-15
1.6.13 Atascosa County	1-15
1.6.14 Bexar County.....	1-15
2.0 ALTERNATIVE ROUTE SELECTION METHODOLOGY	2-1
2.1 Objective of Study.....	2-1
2.2 Study Area Delineation	2-1
2.3 Data Collection and Constraints Mapping.....	2-1
2.4 Agency Consultation	2-5

2.5 Field Reconnaissance	2-5
2.6 Selection of Preliminary Route Segments	2-5
2.7 Open House Public Meeting	2-6
2.8 Alternative Route Selection	2-9
2.9 Alternative Route Evaluation.....	2-13
3.0 NATURAL RESOURCES/ENVIRONMENTAL INTEGRITY	3-1
3.1 Natural Resources/Environmental Integrity	3-1
3.1.1 Physiography and Geology	3-1
3.1.2 Soils	3-4
3.1.3 Water Resources.....	3-8
3.1.4 Groundwater.....	3-9
3.1.5 Floodplains	3-10
3.1.6 Wetlands	3-10
3.1.7 Coastal Management Program.....	3-11
3.1.8 Vegetation	3-11
3.1.9 Wildlife.....	3-19
3.1.10 Southern Edwards Plateau Habitat Conservation Plan	3-30
3.1.11 Threatened and Endangered Species	3-30
3.2 Human Resources/Community Values.....	3-44
3.2.1 Land Use	3-44
3.2.2 Agriculture	3-47
3.2.3 Transportation/Aviation.....	3-47
3.2.4 Communication Towers.....	3-50
3.2.5 Utility Features.....	3-50
3.2.6 Socioeconomics.....	3-50
3.2.7 Community Values	3-53
3.3 Recreational and Park Areas	3-54
3.3.1 National/State/County/Local Parks	3-54
3.3.2 Wildlife Viewing Trails	3-55
3.4 Aesthetic Values.....	3-55
3.5 Historical (Cultural Resource) Values.....	3-56
3.5.1 Cultural Background.....	3-57
3.5.2 Literature and Records Review.....	3-64
3.5.3 Previous Investigations	3-71
3.5.4 High Probability Areas.....	3-72

4.0 ENVIRONMENTAL IMPACTS OF THE ALTERNATIVE ROUTES	4-1
4.1 Impacts on Natural Resources/Environmental Integrity	4-1
4.1.1 Impacts on Physiography and Geology	4-1
4.1.2 Impacts on Soils	4-19
4.1.3 Impacts on Surface Water.....	4-19
4.1.4 Impacts on Ground Water.....	4-20
4.1.5 Impacts on Floodplains	4-20
4.1.6 Impacts on Wetlands.....	4-20
4.1.7 Impacts on Coastal Natural Resource Area.....	4-21
4.1.8 Impacts on Vegetation	4-21
4.1.9 Impacts on Wildlife.....	4-21
4.1.10 Impacts on Aquatic Resources.....	4-22
4.1.11 Impacts on Threatened and Endangered Species	4-23
4.2 Impacts on Human Resources/Community Values.....	4-26
4.2.1 Impacts on Land Use.....	4-26
4.2.2 Impacts on Agriculture	4-28
4.2.3 Impacts on Transportation/Aviation Features.....	4-28
4.2.4 Impacts on Communication Towers.....	4-30
4.2.5 Impacts on Utility Features	4-31
4.2.6 Impacts on Socioeconomics.....	4-32
4.2.7 Impacts on Community Values	4-32
4.3 Impacts on Parks and Recreation Areas	4-32
4.4 Impacts on Aesthetic Values	4-33
4.5 Impacts on Historical (Cultural Resources) Values	4-34
4.5.1 Direct Impacts	4-35
4.5.2 Indirect Impacts.....	4-35
4.5.3 Summary of Cultural Resource Impacts	4-35
5.0 AGENCY CORRESPONDENCE	5-1
6.0 PUBLIC INVOLVEMENT	6-1
6.1 Modifications to the Preliminary Alternative Route Segments	6-4
6.1.1 Segment Modifications	6-4
6.1.2 Segment Deletions	6-5
7.0 LIST OF PREPARERS	7-1

8.0 REFERENCES CITED 8-1

APPENDICES

- A Agency and Other Correspondence
- B Public Involvement
- C Habitable Structures and Other Land Features in the Vicinity of the Primary Alternative Routes
- D Figure 2-4 Primary Alternative Segments with Environmental and Land Use Constraints (Topographic Base Map)
- E Figure 4-1 Habitable Structures and Other Land Use Features in the Vicinity of the Primary Alternative Routes (Aerial Base Map)

FIGURES

Figure 1-1	Project Vicinity	1-3
Figure 1-2	Typical 345 kV Double-Circuit Tangent Structure.....	1-16
Figure 1-3	Typical 345 kV Double-Circuit Dead-end Structure	1-17
Figure 1-4	Typical 345 kV Double-Circuit Tangent Structure.....	1-18
Figure 1-5	Typical 345 kV Double-Circuit Dead-end Structure	1-19
Figure 2-1	Study Area.....	2-3
Figure 2-2	Preliminary Alternative Segments Presented at Open House Meetings	2-7
Figure 2-3	Resulting Primary Alternative Segments Following the Open House Meetings	2-11
Figure 2-4	Primary Alternative Routing Segments with Environmental and Land Use Constraints (Topographic Base Map with Constraints)	(Appendix D)
Figure 3-1	Location of the Study Area in Relation to the Physiographic Regions of Texas	3-2
Figure 3-2	Location of the Study Area in Relation to the Vegetational Areas of Texas	3-13
Figure 3-3	Location of the Study Area in Relation to the Biotic Provinces of Texas	3-20
Figure 3-4	Location of the Study Area in Relation to the Cultural Resource Planning Regions of Texas.....	3-59
Figure 4-1	Habitable Structures and Other Land Use Features in the Vicinity of the Primary Alternative Routes (Aerial Photograph Base Map with CCN Inventory Items) (Appendix E)	
Figure 6-1	Modification to Segment 4 Following the Open House Meetings.....	6-7
Figure 6-2	Modification to Segment 12; Relabel of Northern Portion of 22 as 22A; Relabel of Southern Portion of 22 as 22B Following the Open House Meetings	6-9
Figure 6-3	Modification to Segment 24 Following the Open House Meetings.....	6-11
Figure 6-4	Modification to Segment 49 Following the Open House Meetings.....	6-13
Figure 6-5	Modification to Segment 50; Relabel of Northern Portion of 45 as 45A; Relabel of Southern Portion of 45 as 45B Following the Open House Meetings	6-15
Figure 6-6	Modification to Segments 53; Expanding Segment 52 and Reducing Segment 45B Following the Open House Meetings.....	6-17
Figure 6-7	Modification to Segments 59 and 65; Relabel of Western Portion of 68 as 68A; Relabel of Eastern Portion of 68 as 68B Following the Open House Meeting Following the Open House Meetings.....	6-19
Figure 6-8	Removal of Segment 23 Following the Open House Meetings	6-21
Figure 6-9	Removal of Segment 64 Following the Open House Meetings	6-23
Figure 6-10	Removal of Segment 79 Following the Open House Meetings	6-25
Figure 6-11	Removal of Segment 103 Following the Open House Meetings	6-27

TABLES

Table 2-1	Primary Alternative Route Composition and Length.....	2-10
Table 2-2	Land Use and Environmental Evaluation Criteria.....	2-13
Table 3-1	Mapped Soil Units Occurring within the Study Area	3-5
Table 3-2	Amphibian Species Potentially Occurring within the Study Area	3-21
Table 3-3	Reptilian Species Potentially Occurring within the Study Area.....	3-22
Table 3-4	Avian Species Potentially Occurring within the Study Area	3-24
Table 3-5	Mammalian Species Potentially Occurring within the Study Area.....	3-28
Table 3-6	Threatened and Endangered Species Potentially Occurring within the Study Area	3-33
Table 3-7	Agriculture Information within in the Study Area	3-47
Table 3-8	Population Trends.....	3-51
Table 3-9	Civilian Labor Force and Employment.....	3-52
Table 3-10	Occupations in the Counties of the Study Area.....	3-52
Table 3-11	Industries in the Counties of the Study Area.....	3-53
Table 3-12	Recorded Cultural Resources within the Study Area	3-65
Table 3-13	Recorded NRHP-Listed Resources within the Study Area	3-68
Table 3-14	Recorded NRHP-Eligible Archeological Sites within the Study Area.....	3-68
Table 3-15	Historic Texas Cemeteries, Determined Eligible Cemeteries and Recorded Archeological Sites with Burials Identified within the Study Area.....	3-71
Table 4-1	Land Use and Environmental Data for Route Evaluation	4-3
Table 4-2	Land Use and Environmental Data for Segment Evaluation.....	4-7
Table 4-3	Airport Facilities and Runway Locations.....	4-30
Table 4-4	Electronic Communication Facilities	4-30
Table 4-5	Park and Recreational Areas	4-33
Table 4-6	Archeological Sites Records within 1000 feet of the Alternative Routes	4-37
Table 4-7	Cemeteries Recorded within 1000 feet from the Alternative Routes.....	4-42
Table 4-8	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route A.....	C-1
Table 4-9	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route B.....	C-5
Table 4-10	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route C.....	C-10
Table 4-11	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route D.....	C-15
Table 4-12	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route E.....	C-20

Table 4-13	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route F	C-25
Table 4-14	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route G.....	C-30
Table 4-15	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H.....	C-35
Table 4-16	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route I.....	C-41
Table 4-17	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route J.....	C-45
Table 4-18	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route K.....	C-50
Table 4-19	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route L.....	C-53
Table 4-20	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route M.....	C-57
Table 4-21	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route N.....	C-60
Table 4-22	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route O.....	C-63
Table 4-23	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route P.....	C-66
Table 4-24	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Q.....	C-69
Table 4-25	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route R.....	C-72
Table 4-26	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route S.....	C-75
Table 4-27	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route T.....	C-78
Table 4-28	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route U.....	C-81
Table 4-29	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route V.....	C-83
Table 4-30	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route W.....	C-85
Table 4-31	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route X.....	C-87
Table 4-32	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Y.....	C-89
Table 4-33	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Z.....	C-91

Table 4-34	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AA.....	C-93
Table 4-35	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AB.....	C-95
Table 4-36	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AC.....	C-98
Table 4-37	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AD.....	C-100
Table 4-38	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE.....	C-102
Table 4-39	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF.....	C-108
Table 4-40	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG.....	C-114
Table 4-41	Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AH.....	C-120
Table 6-1	General Response Summary from Questionnaires.....	6-2
Table 6-2	Segment Comments.....	6-3

ACRONYMS AND ABBREVIATIONS

AM radio	Amplitude modulation radio
BEG	Bureau of Economic Geology
BGEPA	Bald and Golden Eagle Protection Act
BMP(s)	Best Management Practice(s)
BP	Before Present
CCN	Certificate of Convenience and Necessity
C.F.R.	Code of Federal Regulations
CLF	civilian labor force
CMP	Costal Management Program
CMZ	Coastal Management Zone
CPS Energy	City Public Service Board
CWA	Clean Water Act
DoD	Department of Defense
EA	Environmental Assessment and Alternative Route Analysis
EAA	Edwards Aquifer Authority
EOR	Element of occurrence record
ERCOT	Electric Reliability Council of Texas, Inc.
ESA	Endangered Species Act
ESSS	Ecologically Significant Stream Segments
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FM	Farm-to-Market Road
FM radio	Frequency modulation radio
GIS	Geographic Information Systems
GLO	Texas General Land Office
HCP	Habitat Conservation Plan
HPA	high probability area
HTC	Historic Texas Cemeteries
IH	Interstate Highway
IPaC	Information for Planning and Consultation
ISD	Independent School District
kcmil	thousand circular mils
kV	kilovolt
MBTA	Migratory Bird Treaty Act
MVA	Megavolt-amperes
NCED	National Conservation Easement Database
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Code
NHD	National Hydrography Dataset
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NOT	Notice of Termination
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWP	Nationwide Permit

OHP	City of San Antonio Office of Historic Preservation
OTHM	Official Texas Historical Marker
PEM	palustrine emergent
PFO	palustrine forested
POWER	POWER Engineers, Inc.
ppt	parts per trillion
Project	Howard Road to San Miguel 345 kV Transmission Line
PSS	palustrine scrub-shrub
PUC	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
ROW	right-of-way
RRC	Railroad Commission of Texas
SAL	State Antiquities Landmark
San Antonio	City of San Antonio
SAWS	San Antonio Water System
SEP	Southern Edwards Plateau
SH	State Highway
SHPO	State Historic Preservation Office
SL	State Highway Loop
STEC	South Texas Electric Cooperative, Inc.
SWPPP	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TARL	Texas Archeological Research Laboratory
TASA	Texas Archeological Sites Atlas
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
THSA	Texas Historical Sites Atlas
TLC	Texas Land Conservancy
TMDL	Total Maximum Daily Load
TNRC	Texas Natural Resource Code
TPWD	Texas Parks and Wildlife Department
TSS	Texas Speleological Survey
TWDB	Texas Water Development Board
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
TXSDC	Texas State Data Center
U.S.C.	United States Code
US Hwy	United States Highway
US	United States
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 DESCRIPTION OF THE PROPOSED PROJECT

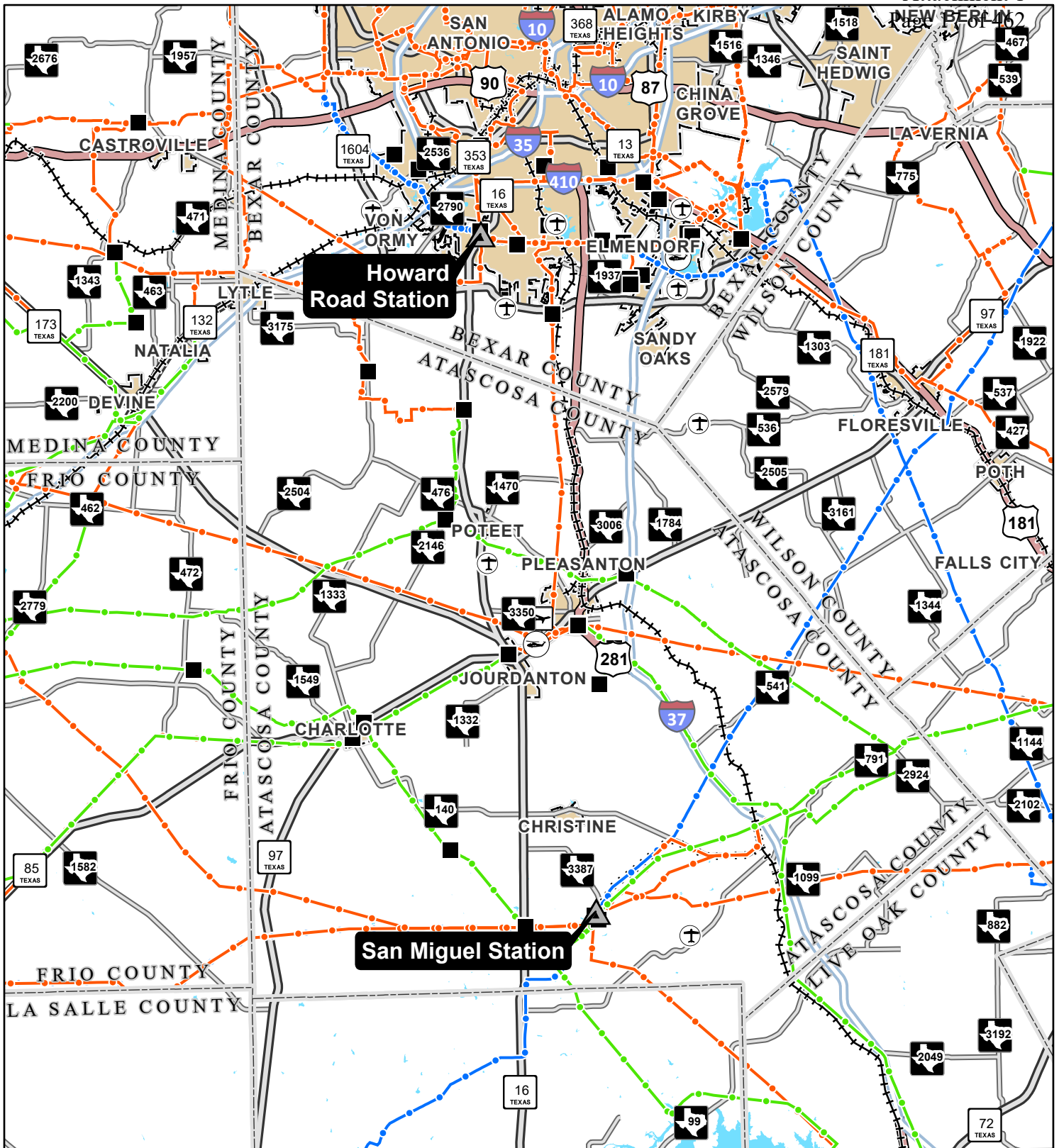
1.1 Scope of the Project

The City of San Antonio, acting by and through City Public Service Board (CPS Energy) and South Texas Electric Cooperative, Inc. (STEC) are proposing to construct a new double-circuit 345 kilovolt (kV) transmission line in Atascosa and Bexar Counties (Figure 1-1). The Howard Road to San Miguel 345 kV Transmission Line project (Project) will connect the CPS Energy Howard Road Station located approximately three miles northeast of the intersection of State Highway (SH) 16 and SH 1604, to the existing STEC San Miguel Station located approximately four miles east of SH 16 and approximately 0.65 mile southwest of Farm-to-Market Road (FM) 3387. Depending on which route is approved for the Project, the total length of the transmission line will range between approximately 45 to 59 miles. The right-of-way (ROW) necessary to safely operate the Project on private property will be approximately 150 feet in width. The Project is currently anticipated to be in service by the summer of 2027.

Most of the Project will be constructed, owned, and operated by CPS Energy and STEC outside the municipal boundaries of the City of San Antonio (San Antonio). CPS Energy and STEC intend to present the Public Utility Commission of Texas (PUC) with a joint application to amend their respective Certificates of Convenience and Necessity (CCNs) that includes route evaluation and cost information for the entirety of the Project, both inside and outside of San Antonio. Following the PUC's evaluation of the need for the Project and approval of routing outside of San Antonio, CPS Energy will evaluate and determine the routing of the remaining portion of the Project within the municipal boundaries of San Antonio in conjunction with the PUC's decision.

CPS Energy and STEC contracted with POWER Engineers, Inc. (POWER) to prepare this Environmental Assessment and Alternative Route Analysis (EA) for the Project. The EA will support CPS Energy and STEC's joint CCN application to be submitted to the PUC and CPS Energy's evaluation of the portion of the Project within the San Antonio municipal boundaries following the PUC's decision. The EA may also be used to support any additional federal, state, or local permitting activities that might be required in association with construction of the Project.

This page left blank intentionally.



UT CO KS MO
AZ NM OK AR
LA

Project Area

**HOWARD ROAD TO SAN MIGUEL
345 KV TRANSMISSION LINE
PROJECT**

**FIGURE 1-1
PROJECT VICINITY**

0 5 10
Miles

Date: 8/20/2024

This page left blank intentionally.

The EA discusses and documents the environmental and land use constraints identified within the Project study area, routing methodologies, and public involvement. The EA additionally provides an evaluation of alternative routes for the Project from an environmental and land-use perspective. CPS Energy and STEC will use the data presented in the EA in identifying an alternative route that best addresses the requirements under the Public Utility Regulatory Act (PURA) and 16 Texas Administrative Code (TAC) § 25.101.

To assist POWER in its evaluation of the Project, CPS Energy and STEC provided POWER with information regarding potential Project endpoints, the need for the Project, proposed construction practices, transmission line design, clearing methods, ROW requirements, and maintenance procedures.

1.2 Purpose and Need

As a result of (i) new generation additions in areas south and east of San Antonio, (ii) 345 kV projects planned for the Lower Rio Grande Valley area, and (iii) generation retirements in the San Antonio area, the Project is needed to address significant transmission line overloads southeast of San Antonio. On August 31, 2023, The Electric Reliability Council of Texas (ERCOT) Board of Directors unanimously recommended construction of the Project as critical to addressing identified electric reliability concerns in the San Antonio area. The Project has also been designated as critical to the reliability of the ERCOT system pursuant to Commission Substantive Rule 25.101(b)(3)(D). Both the Howard Road and San Miguel Stations will be expanded to connect the proposed double-circuit 345 kV transmission line to the existing transmission grid.

1.3 Description of Proposed Design

A general description of the transmission line design is provided below. Some details of the proposed installation will be determined following approval of a specific route.

1.3.1 Transmission Line Design

The Project will be operated as a 345 kV transmission line with 1272 thousand circular mils (kcmil) aluminum conductor, steel-supported trapezoidal (ACSS/TW), Pheasant, with two conductors per phase and one static wire per circuit. The transmission line will be installed on new structures and within new easements. ROW widths will typically be 150 feet to accommodate constraints and to meet engineering clearance specifications.

The configurations of the conductor and shield wire will provide adequate clearance for operation at 345 kV, considering icing and wind conditions. The Project will be designed and constructed to meet or exceed the specifications set forth in the current edition of the National Electrical Safety Code (NESC) and will comply with all applicable state and federal statutes and regulations.

1.3.2 Typical Transmission Line Structures and Easements

For most segments of the proposed routes, CPS Energy and STEC propose to use 345 kV double-circuit monopole structures for typical tangent, angle, and dead-end structures. For some angles and dead-end structures, more than one pole structure may be utilized. The geometries of the proposed typical tangent and dead-end structures are shown on Figures 1-2 through 1-5. All structure geometries are illustrative. In some areas shorter than typical, taller than typical, or alternative structure types may be utilized. Actual structure types may differ slightly based on newer or different designs available at the time of construction.

The Project will be constructed in new ROW, within easements typically 150 feet in width, using spans that typically range from approximately 800 to 1,200 feet. In some areas, easement width and span length could be more or less than the typical depending on terrain and other engineering considerations. Access easements and/or temporary construction easements may be needed in some areas.

1.3.3 Construction Schedule

CPS Energy and STEC plan to construct the Project between January 2026 and June 2027. The specific construction schedule will be refined as the ROW is acquired and surveyed, engineering designs are finalized, and any necessary species accommodations are considered. The transmission line is proposed to be constructed by a combination of contractors, and CPS Energy and STEC crews.

1.4 Construction Considerations

Projects of this type require clearing, structure assembly and erection, conductor and shield wire installation, and clean up when the Project is completed. The following criteria will be taken into consideration (these criteria are subject to adjustment befitting the rules and judgments of any public agencies whose lands may be crossed by the proposed line):

1. Clearing and grading of construction areas such as storage areas, setup sites, etc., will be minimized to the extent practicable. These areas will be graded in a manner that will minimize erosion and conform to the natural topography.

2. Soil that has been excavated during construction and not used will be evenly backfilled onto a cleared area or removed from the site. The backfilled soil will be sloped gradually to conform to the terrain and the adjacent land. All disturbed areas as a result of construction activity will be restored as reasonably practicable to the natural contour.
3. Soil disturbance during construction will be minimized and erosion control devices will be utilized where necessary. The Project will comply with Texas Commission on Environmental Quality (TCEQ), Atascosa County, Bexar County, and the City of San Antonio requirements for stormwater discharges.
4. Clearing and construction activities in the vicinity of streambeds will be performed in a manner to minimize damage to the natural condition of the area. Where feasible, service and access roads will be constructed jointly. Roads will not be constructed on unstable slopes and as required, side drainage ditches and culverts will be utilized to prevent soil or road erosion. Construction of access roads and drainage structures required for the Project will comply with any applicable local, state, or federal permit requirements.
5. Tension stringing of conductors may be employed to reduce the amount of vegetation clearing before final conductor locations are established.
6. When possible, in areas of high wildlife use or in areas of known endangered or threatened species habitat, construction will be performed during seasons of low wildlife occurrence, such as between periods of peak waterfowl migrations (generally spring and fall) and during nonbreeding season (species dependent).
7. If any archeological materials are uncovered during construction, construction will cease in the immediate area of the discovery and the discovery will be evaluated.

1.4.1 Clearing and ROW Preparation

Clearing plans, methods, and practices are extremely important to minimize the potential adverse effects of transmission lines on the environment. The ROW will not be clear cut. Only trees and vegetation that may interfere with the construction, operation, and maintenance of the transmission line will be removed, and if within the City of San Antonio's jurisdiction, in accordance with the San Antonio tree ordinance requirements. Trees and brush that are removed will be mulched and spread in the ROW to help stabilize the ground and prevent erosion. CPS Energy and STEC do not generally intend to use herbicides in ROW clearing and preparation. Landowners' preferences will be considered if other methods of ROW clearing are preferred.

1.4.2 Structure Assembly and Erection

Survey crews will stake or otherwise mark structure locations. Construction crews will install structures by excavating holes and placing a reinforced concrete drilled pier foundation. After the foundations have cured sufficiently, crews will set the structures and install the conductor and shield wire suspension assemblies. Since a large amount of vehicular traffic will occur during this operation, construction crews will take care to minimize impacts to the ROW by minimizing the number of pathways traveled.

1.4.3 Conductor and Shield Wire Installation

The conductors and shield wires are typically installed via a tensioning system. Conductor and shield wires are pulled by ropes and held tight by tensioner to keep the wires from coming in contact with the ground and other objects that could be damaging to the wire. Guard structures will be installed (using bucket trucks or temporary wood-pole structures) where the transmission line crosses overhead electric power lines, overhead telephone lines, roadways, or other areas requiring sag. After the wire is pulled, it is placed in suspension and dead-end clamps for permanent attachment. In some areas, use of helicopters may be utilized for conductor and shield wire installation.

1.4.4 Cleanup

The cleanup operation typically involves returning disturbed areas to as close to the original contour as possible, the removal of debris, and the restoration of any items damaged by construction of the Project. Upon the completion of the construction work, all scraps, trash, excavated materials, waste materials, and debris resulting from construction of the transmission line will be promptly removed. All construction equipment and materials will be removed from the site, and waste disposal will be conducted in a legal manner. In some locations, disturbed areas may be re-vegetated with native grass seed mixture.

1.5 Maintenance Considerations

Following construction, CPS Energy and STEC will periodically inspect the station, transmission line ROW, and structures to ensure the safe and reliable operation of the facilities. The primary maintenance for the completed Project will be the removal or trimming of trees that pose a potential danger to the conductors or structures. Preservation of natural resources requires a thoughtful, comprehensive maintenance program. The following factors are key components of CPS Energy and STEC's maintenance program that will be utilized for the Project.

1. Native vegetation, particularly that of value to fish and wildlife that does not have the potential to grow close enough to the transmission line so as to pose a hazard to the safe operation and maintenance of the transmission line, will be allowed to grow in the ROW. Likewise, if

ecologically appropriate, native grass cover and low-growing shrubs will be left in the areas immediately adjacent to transmission structures. Where grading is necessary, access roads will be graded to the proper slope to prevent soil erosion.

2. A cover of vegetation will be maintained within the ROW in a manner that minimizes erosion and does not interfere with the safe and reliable operation of the transmission facilities.
3. If used, United States Environmental Protection Agency (USEPA)-approved herbicides will be carefully selected to have a minimal effect on desirable indigenous plant life, and selective application will be used whenever appropriate during maintenance inspections.
4. CPS Energy and STEC perform routine maintenance inspections at appropriate intervals. Routine maintenance will be performed, when possible, when access roads are firm or dry.
5. Aerial and ground maintenance inspection activities of the transmission line facility will include observation of soil erosion problems, fallen timber, and conditions of the vegetation that require attention. Where necessary, on the basis of erosion control, native shrubs or grasses may be planted.
6. CPS Energy and STEC intend for the ROW to be utilized for compatible uses as long as the activity does not impact public safety or inhibit the safe operation and maintenance of the electrical system. The results of natural resources and cultural resources assessments will be followed as necessary and appropriate during maintenance of the ROW.

1.6 Agency Actions

If the proposed transmission line is located within, or across, the ROW of any county or state-maintained road or highway, CPS Energy and STEC will obtain the appropriate permit(s) from the controlling governing entity. Since more than one acre will be cleared or disturbed during construction, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared and a construction notice will be submitted by CPS Energy to the San Antonio Water Systems (SAWS). The controls specified in each SWPPP will be monitored in the field. Permits or regulatory approvals may also be required from the TCEQ, Texas Historical Commission (THC), United States Army Corps of Engineers (USACE), and the United States Fish and Wildlife Service (USFWS). Following the identification of environmental and ROW concerns, appropriate measures will be taken during engineering design to incorporate special provisions in construction documents, specifications, or other instructions. Following completion of the design, a preconstruction conference will be held, which will include a review of these provisions. Physical inspections of the Project will be performed to assure all appropriate measures have been taken during construction.

Numerous federal, state, and local regulatory agencies and organizations have developed rules and regulations regarding the routing and potential impacts associated with the construction of the Project. This section describes the major regulatory agencies and additional issues that are involved in Project planning and permitting of transmission lines in Texas. POWER solicited comments from various regulatory entities during the development of this document, and records of correspondence and additional discussions with these agencies and organizations are provided in Appendix A.

1.6.1 Public Utility Commission of Texas

The PUC regulates CPS Energy's construction, installation, or extension of transmission lines in Texas outside of the San Antonio municipal boundaries and STEC under Sections 37.051(g) and 37.056(c)(4)(A)-(D) of PURA. In addition to the specific legislative requirements in PURA, the PUC regulatory guidelines for routing transmission lines in Texas include:

- 16 TAC 25.101(b)(3)(B) (including the PUC's policy of prudent avoidance)
- 16 TAC 22.52(a)(4)
- The PUC's CCN application requirements
- PUC precedent related to transmission line applications

This EA has been prepared by POWER in support of CPS Energy and STEC's joint CCN application for this Project to be filed at the PUC for its consideration and subsequent evaluation by CPS Energy for the portion of the Project within the City of San Antonio.

1.6.2 United States Army Corps of Engineers

The USACE is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 United States Code [U.S.C.] § 403) and Section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344) to implement these statutes. Under Section 10, the USACE regulates all work or structures in or affecting the course, condition, or capacity of navigable waters of the United States (US). The intent of this law is to protect the navigable capacity of waters important to interstate commerce. Under Section 404, the USACE regulates the discharge of dredged and fill material into all waters of the US, including associated wetlands. The intent of this law is to protect the "waters of the US" and aquatic ecosystems from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical, and biological integrity.

The Project is located within the jurisdiction of the USACE – Fort Worth District. Review of the National Hydrography Dataset (NHD) and National Wetland Inventory (NWI) maps indicate surface waters of the US and associated areas of potential wetlands may occur within the study area. Upon PUC and San Antonio approval of a complete route for the Project, additional coordination, jurisdictional wetland verifications and permitting with the USACE – Fort Worth District for a Section 404 Permit might be required. Based on the Project footprint and construction techniques proposed, the construction of the Project will likely meet the criteria for the Nationwide Permit (NWP) No. 57, which applies to activities associated with any cable, line, or wire for the transmission of electrical energy. A Section 10 permit is not anticipated for this Project.

1.6.3 United States Fish and Wildlife Service

The USFWS is charged with the responsibility for enforcement of federal wildlife laws and providing comments on proposed construction projects with a federal nexus under the National Environmental Policy Act (NEPA) and within the framework of several federal laws including the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Bald and Golden Eagle Protection Act (BGEPA).

POWER requested a USFWS Information for Planning and Conservation (IPaC) review and official species list to identify potentially occurring federally protected species and designated critical habitats within the study area (Project Code: 2024-0025151). POWER also reviewed the Texas Natural Diversity Database (TXNDD) records of federal- and state-listed species occurrences, rare vegetation communities, and/or species of concern. POWER considered these listings during the route development process.

Upon PUC and San Antonio approval of a complete route for the Project and prior to construction, surveys will be completed as determined necessary and appropriate to identify any potentially suitable habitat for federally listed species. If suitable habitat is identified, then informal consultation with the USFWS – Texas Coastal Ecological Services Field Office might need to occur to determine the need for any required species-specific surveys and/or permitting under Section 10 of the ESA.

1.6.4 Federal Aviation Administration

According to Federal Aviation Administration (FAA) regulations, Title 14 Code of Federal Regulations (C.F.R.) Part 77.9 the construction of a transmission line requires FAA notification if a transmission tower structure height will exceed 200 feet or the height of an imaginary surface extending outward and upward at one of the following slopes:

- A 100:1 slope for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport described in paragraph (d) of 14 C.F.R. Part 77.9 having at least one runway longer than 3,200 feet, excluding heliports;
- A 50:1 slope for a horizontal distance of 10,000 feet from the nearest runway of a public or military airport described in paragraph (d) of 14 C.F.R. Part 77.9 where its longest runway is no longer than 3,200 feet in length, excluding heliports; or
- A 25:1 slope for a horizontal distance of 5,000 feet for a heliport described in paragraph (d) of 14 C.F.R. Part 77.9.

Paragraph (d) of 14 C.F.R. Part 77.9 includes public-use airports listed in the Airport/Facility Directory (currently the Chart Supplement), public-use or military airports under construction, airports operated by a federal agency or the Department of Defense (DoD), or an airport or heliport with at least one FAA-approved instrument approach procedure.

Notification is not required for structures that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height and will be located in a congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation.

The PUC CCN application also requires listing private airports within 10,000 feet of any alternative route centerline. It is not currently anticipated that any route for the Project will require FAA notification. Following PUC and San Antonio approval of a complete route for the Project, STEC and CPS Energy will make a final determination of the need for FAA notification, based on specific structure locations and design. If any of the FAA notification criteria are met for the approved route, a Notice of Proposed Construction or Alteration, FAA Form 7460-1, will be completed and submitted to the FAA Southwest Regional Office in Fort Worth, Texas, at least 30 days prior to construction. The result of this notification, and any subsequent coordination with the FAA, could include changes in line design and/or potential requirements to mark and/or light the structures.

1.6.5 Military Aviation and Installation Assurance Siting Clearinghouse

The DoD Military Aviation and Installation Assurance Siting Clearinghouse works with industry to overcome risks to national security while promoting compatible domestic energy development. Energy production facilities and transmission projects involving tall structures, such as electrical transmission

towers, may degrade military testing and training operations. The electromagnetic interference from electricity transmission lines can impact critical DoD testing activities. Title 16 TAC §22.52 states that upon filing of the joint CCN application, the DoD shall be notified and an affidavit attesting to the notification shall also be provided with the applicants' proof of notice. The DoD shall also be provided written notice of the public meeting and if a public meeting is not held, the DoD shall be noticed of the planned filing of the joint CCN application prior to the completion of the routing study. On December 8, 2023, the DoD was contacted about the proposed Project to provide notification and to solicit any input from the DoD about the proposed Project. In addition, on March 19, 2024 and in accordance with 16 TAC § 22.52 (a)(4), public meeting notice was provided via mail and email to the DoD Military Aviation and Installation Assurance Siting Clearinghouse for the two public meetings that were held for the proposed Project on April 2, 2024 and April 4, 2024. A notice of the filing of the joint CCN application will be sent to the DoD Military Aviation and Installation Assurance Siting Clearinghouse when the joint CCN application is filed with the PUC.

1.6.6 Texas Parks and Wildlife Department

The Texas Parks and Wildlife Department (TPWD) is the state agency with the primary responsibility for protecting the state's fish and wildlife resources in accordance with Texas Parks and Wildlife Code Section 12.0011(b). POWER solicited comment from TPWD during the scoping phase of the Project, and a copy of this EA will be submitted to TPWD when the joint CCN application is filed with the PUC. Once the PUC and San Antonio approves a complete route for the Project, additional coordination with TPWD may be necessary to determine the need for any additional surveys, and to avoid or minimize any potential adverse impacts to sensitive habitats, threatened or endangered species, and other state regulated fish and wildlife resources.

1.6.7 Floodplain Management

Floodplain maps published by the Federal Emergency Management Agency (FEMA) were reviewed to identify the mapped 100-year floodplains within the study area. The mapped 100-year floodplains are typically associated with the larger creeks and streams or within the boundaries of a river. The 100-year floodplain represents a flood event that has a one percent chance of being equaled or exceeded for any given year. The construction of the proposed transmission line is not anticipated to create any significant permanent changes in the existing topographical grades and will not substantially increase the stormwater runoff within the study area due to increased areas of impermeable surfaces. Additional coordination with floodplain administrators in the study area counties may be required after PUC and San Antonio route approval to determine if any permits or mitigation is necessary.

1.6.8 Texas Commission on Environmental Quality

The TCEQ is the state agency with the primary responsibility for protecting the state's water quality. Construction of the Project will require a Texas Pollution Discharge Elimination System General Construction Permit (TXR150000) as implemented by the TCEQ under the provisions of Section 402 of the CWA and Chapter 26 of the Texas Water Code. More than five acres of land disturbance is anticipated during construction of the Project for all alternative routes; therefore, the construction will be considered a "Large Construction Project" under TXR150000. Before beginning construction, CPS Energy and STEC will develop and implement SWPPPs for use during construction activities. Site notices will be posted and notifications sent to the Municipal Separate Sewer System Operator (if applicable). The submittal of a Notice of Intent (NOI) and Notice of Termination (NOT) to the TCEQ is also required for large construction projects.

1.6.9 Texas Historical Commission

Cultural resources are protected by federal and state laws if they have some level of significance under the criteria of the National Register of Historic Places (NRHP) (36 C.F.R. Part 60) or under state guidance (TAC, Title 13, Part 2, Chapter 26.7-8). The THC was contacted by POWER to identify known cultural resource sites within the study area boundary. POWER also reviewed Texas Archeological Research Laboratory (TARL) records for known locations of cultural resource sites. Once a route is approved by the PUC and San Antonio, additional coordination with the THC might determine the need for any archeological surveys or additional permitting requirements under the Antiquities Code of Texas (Texas Natural Resource Code [TNRC], Title 9, Chapter 191). CPS Energy and STEC propose to implement an unanticipated discovery procedure during construction activities. If artifacts are discovered during construction, activities will cease near the discovery, and CPS Energy and STEC will notify the State Historic Preservation Office (SHPO) for additional consultation.

1.6.10 Texas Department of Transportation

POWER notified the Texas Department of Transportation (TxDOT) of the Project during the development of the EA. If the route approved by the PUC and San Antonio crosses or occupies TxDOT ROW, it will be constructed in accordance with the rules, regulations, and policies of TxDOT. Best Management Practices (BMPs) will be used as required to minimize erosion and sedimentation resulting from construction. Revegetation will occur as required under the "Revegetation Special Provisions" and contained in TxDOT Form 1023 (Rev. 9-93). Traffic control measures will comply with applicable portions of the Texas Manual of Uniform Traffic Control Devices.

1.6.11 Texas General Land Office

The Texas General Land Office (GLO) requires a miscellaneous easement for ROWs within any state-owned riverbeds or navigable streams or tidally influenced waters. Coordination with the GLO will be completed after PUC and San Antonio approval of a route.

1.6.12 City of San Antonio

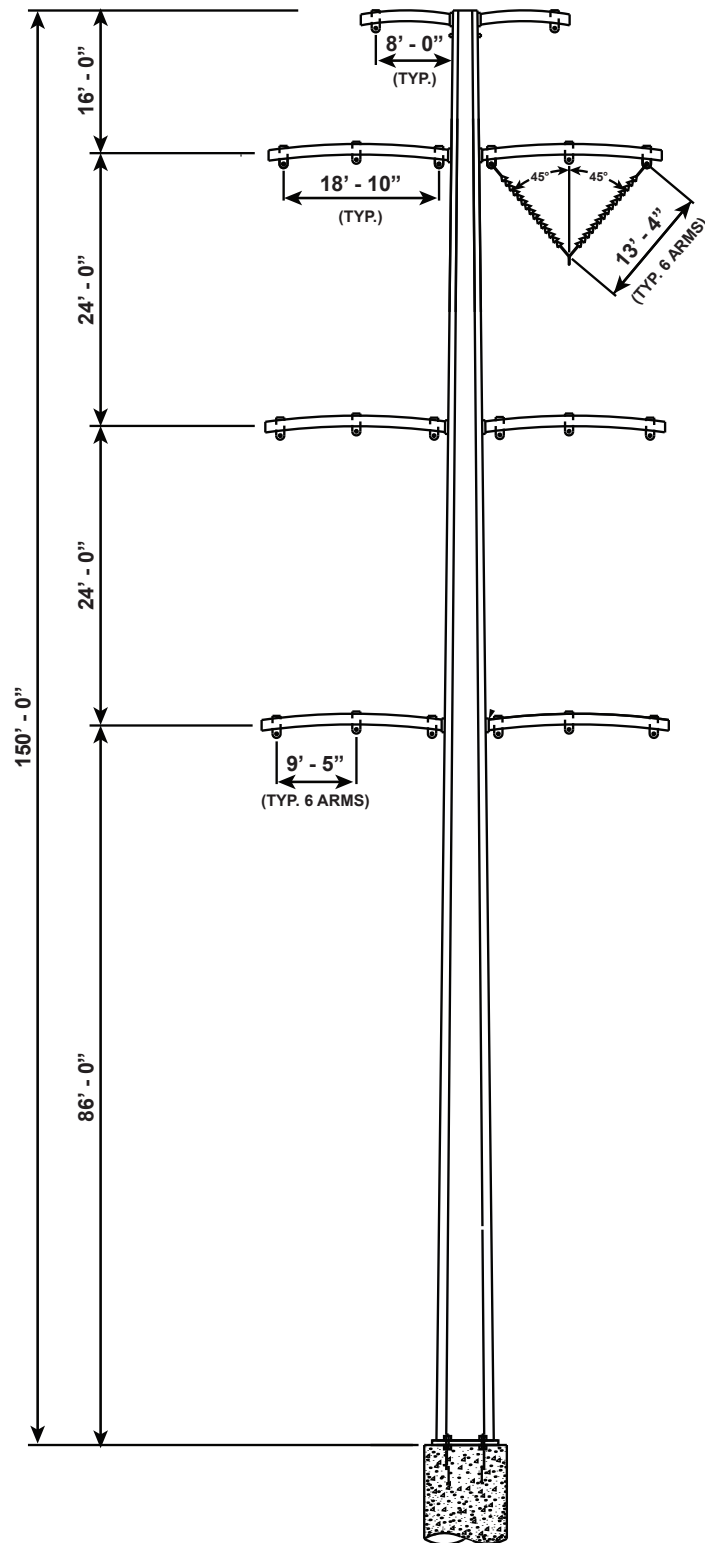
Part of the Project area is within the municipal boundaries of San Antonio. Therefore, San Antonio has approval authority regarding the routing, construction, and operation of the Project within the San Antonio boundaries. Subsequent to the PUC's consideration of the Project need and routing outside of San Antonio boundaries, San Antonio will approve construction of the remaining portion of the Project within San Antonio. San Antonio also has jurisdiction on Cultural Resources evaluation under the Unified Development Code Chapter 35, Article VI within San Antonio boundaries and Extra-Territorial Jurisdiction. Furthermore, San Antonio has jurisdiction on tree mitigation according to San Antonio Unified Development Code Section 35-523. Throughout the process of designing the Project and clearing property for the safe and reliable operation of the transmission line and station, CPS Energy will make every effort to save tree canopy and heritage trees where possible. The construction of the Project will require CPS Energy to obtain a tree permit from San Antonio prior to construction within the city.

1.6.13 Atascosa County

Atascosa County will require a Storm Water Quality Permit, Post Construction Permit, and Floodplain Permit for the construction of the Project, as applicable. The permit will be completed after PUC and San Antonio approval of the Project route.

1.6.14 Bexar County

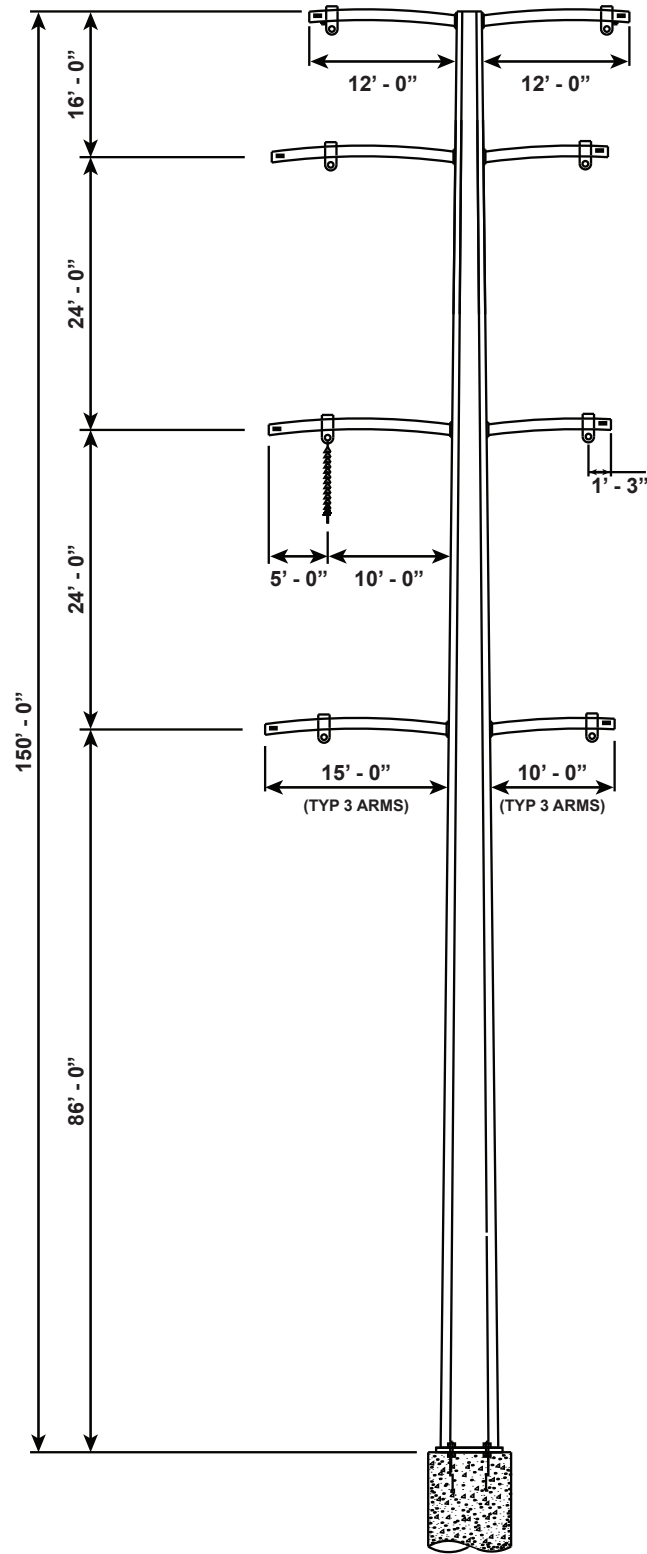
Bexar County will require a Storm Water Quality Permit, Post Construction Permit, and Floodplain Permit for the construction of the Project, as applicable. The permit will be completed after PUC and San Antonio approval of the Project route.



HOWARD ROAD TO SAN MIGUEL 345 KV TRANSMISSION LINE PROJECT

Figure 1-2

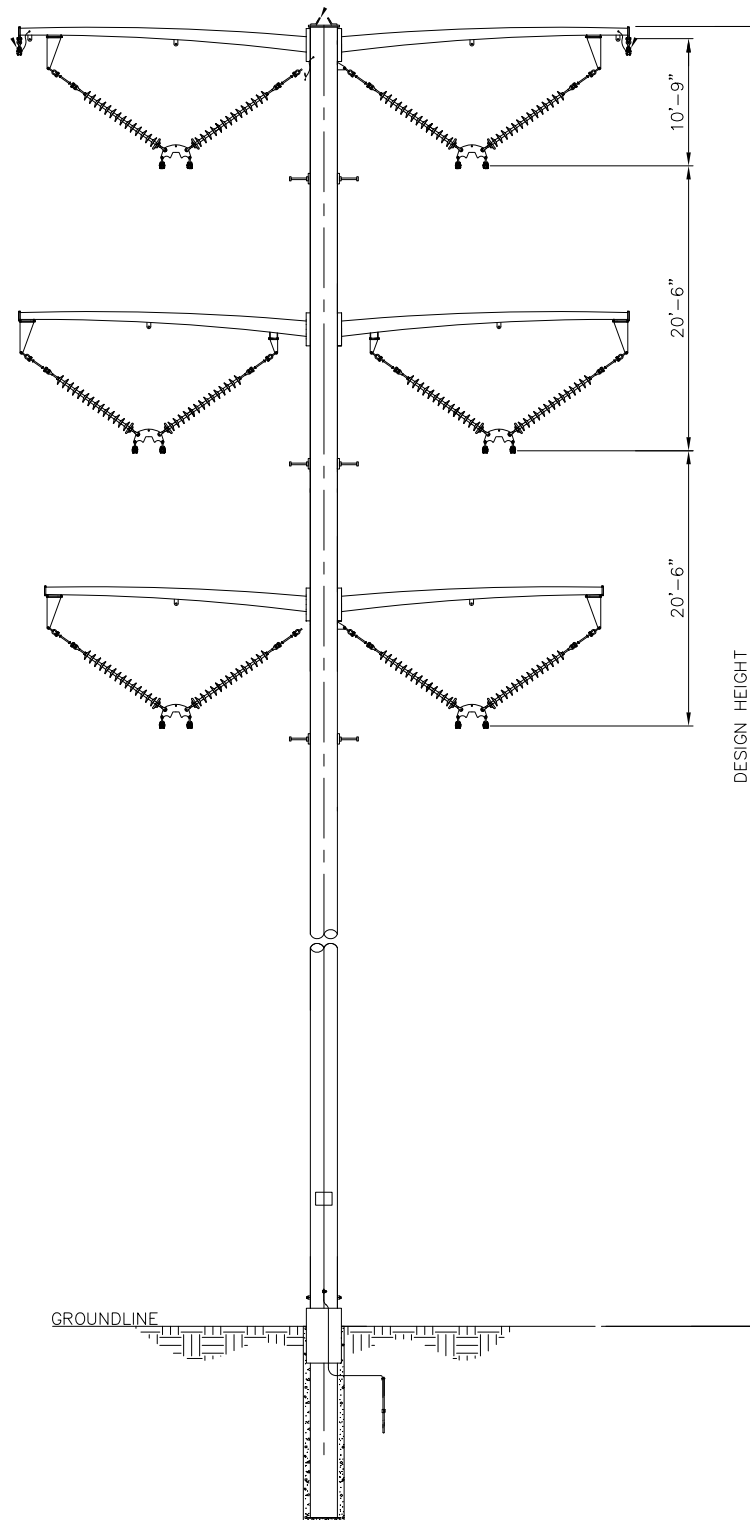
Typical 345 kV Double Circuit Tangent Structure



HOWARD ROAD TO SAN MIGUEL 345 KV TRANSMISSION LINE PROJECT

Figure 1-3

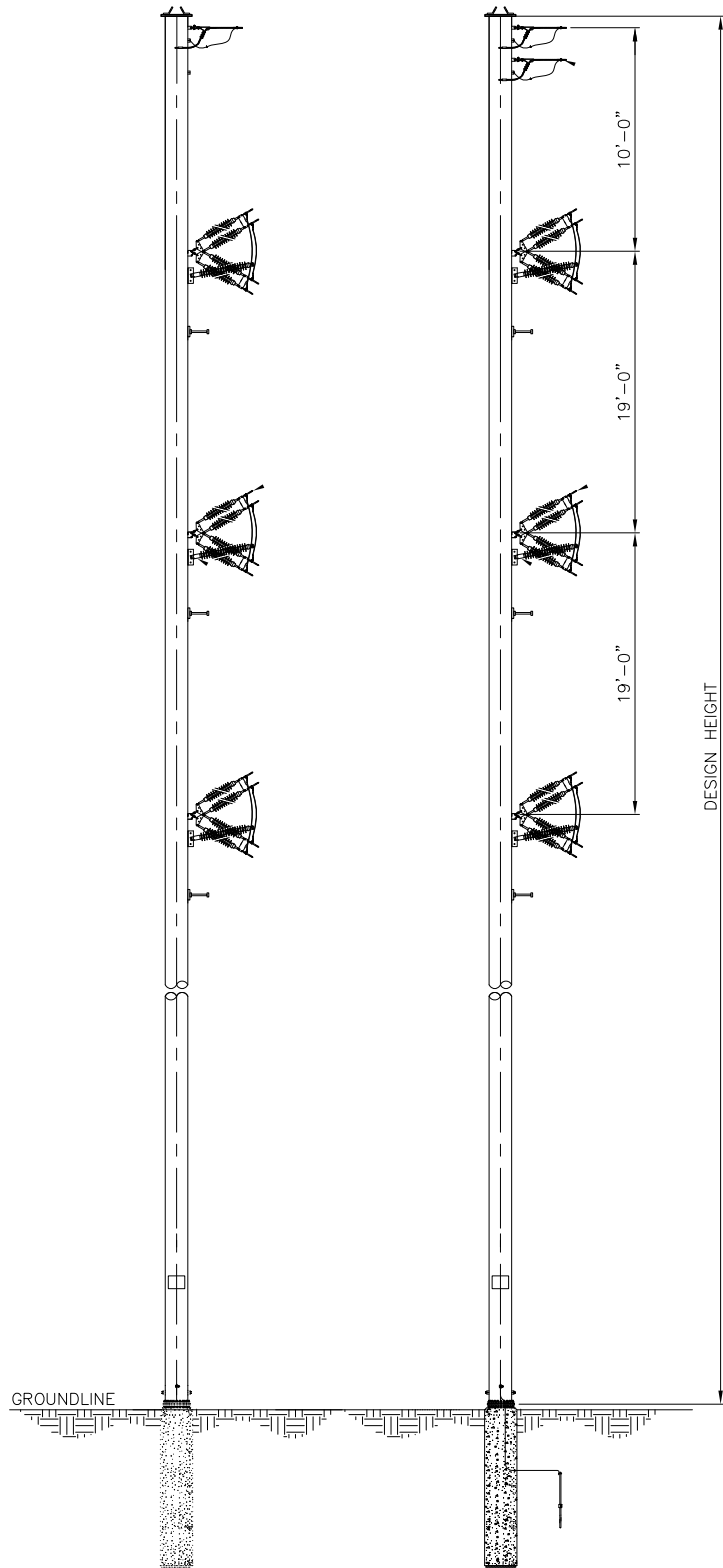
Typical 345 kV Double Circuit Dead-end Structure



Howard Road to San Miguel 345 kV Transmission Line Project

Figure 1-4

Typical 345 kV Double Circuit Tangent Structure



Howard Road to San Miguel 345 kV Transmission Line Project

Figure 1-5

Typical 345 kV Double Circuit Deadend Structure

This page left blank intentionally.

2.0 ALTERNATIVE ROUTE SELECTION METHODOLOGY

2.1 Objective of Study

The objective of this EA is to develop and evaluate alternative transmission line routes that provide geographic diversity and comply with Section 37.056(c)(4)(A)-(D) of PURA, the PUC's Substantive Rules located at 16 TAC § 25.101(b)(3)(B), including the PUC's policy of prudent avoidance, the PUC's CCN application requirements, the precedent established by the PUC for transmission line certification projects, CPS Energy's transmission line routing manual, and STEC's general routing procedures. The study methodology utilized by POWER for this EA included study area delineation based on the Project endpoints; identification and characterization of existing land use and environmental constraints; and routing opportunity located within the study area. POWER identified potentially affected resources and considered each during the route development process. Input from regulatory agencies, local officials, and the public meetings were also considered during the route development process. Modifications, deletions, and additions of preliminary segments were made while considering resource sensitivities and public input.

Feasible and geographically diverse alternative routes were then selected for analysis and comparison using evaluation criteria to determine potential impacts to existing land use and environmental resources. CPS Energy and STEC will also consider all of the certification criteria in PURA and the PUC Substantive Rules, engineering and construction constraints, grid reliability and security issues, and estimated costs to identify one alternative route that they believe best addresses the requirements of PURA and PUC Substantive Rules. This alternative route, as well as other alternative routes that provide geographic diversity and sufficient routing options, will all be submitted to the PUC in the joint CCN application.

2.2 Study Area Delineation

The study area needed to include a large enough area within which a sufficient number of geographically diverse alternative routes could be developed between the existing station sites. The study area POWER developed in coordination with CPS Energy and STEC is approximately 40 miles long, 15 miles wide, and encompasses approximately 613 square miles in Atascosa and Bexar Counties (see Figure 2-1).

2.3 Data Collection and Constraints Mapping

After delineation of the study area, a constraint map was prepared and used to initially display resource data and constraints for the Project area. The constraint map provides a broad overview of various resource locations indicating both routing constraints and areas of potential routing opportunities.

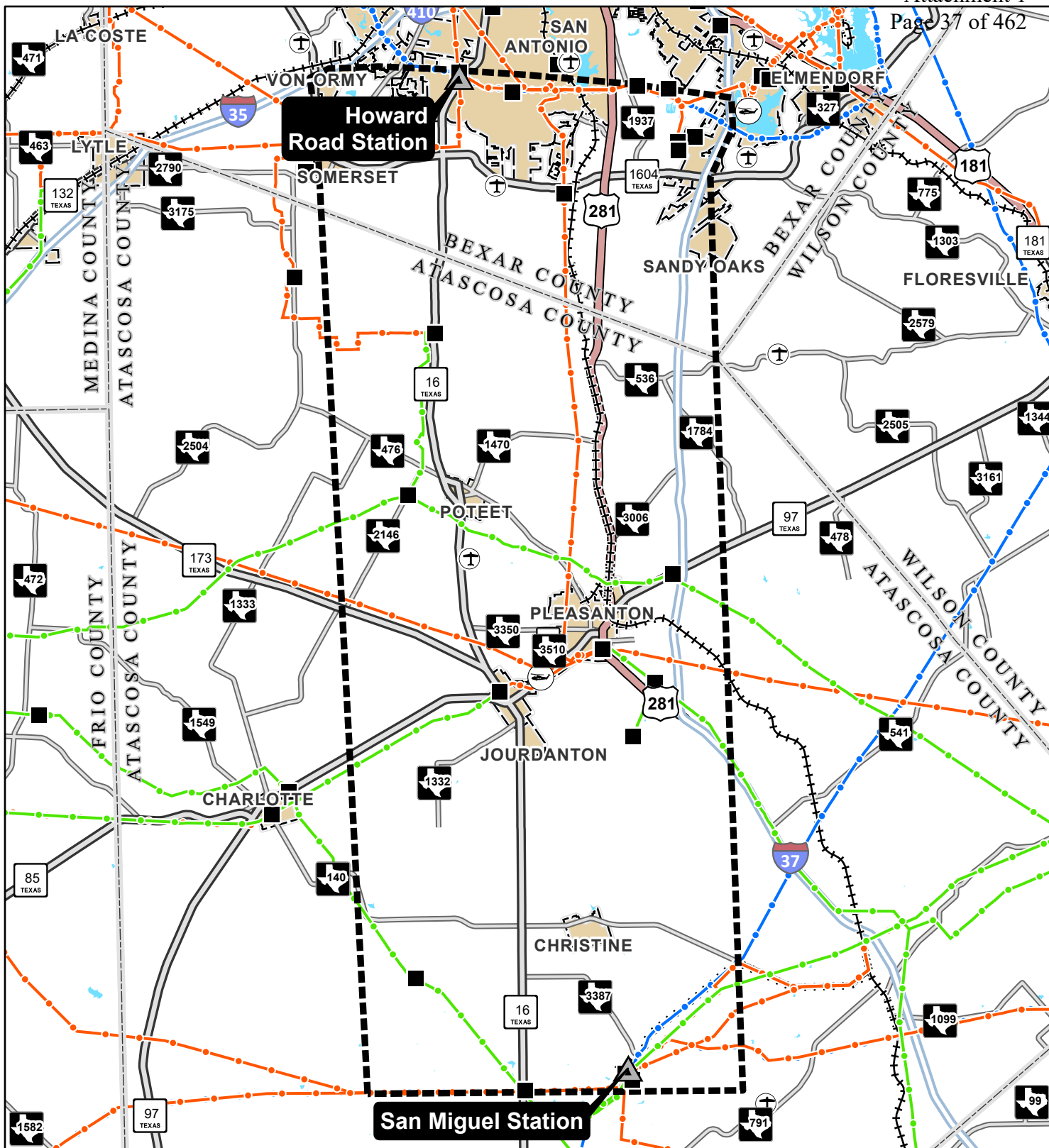
Several methodologies were utilized to collect and review environmental and land use data, including incorporation of readily available Geographic Information System (GIS) coverage with associated metadata;

review of maps and published literature; and review of files and records from numerous federal, state, and local agencies. Data collected for each resource area was mapped within the study area utilizing GIS layers. The conditions of the existing environment are discussed throughout Section 3.0 of this document. Section 5.0 and Appendix A provide information regarding correspondence with agencies and officials.

Maps and/or data layers reviewed include (but are not limited to) United States Geological Survey (USGS) 7.5-minute topographic maps, NWI maps, TxDOT county highway maps, and recent aerial photography. USGS topographic maps and aerial photography (October 2022) were used as the background for the environmental and land use constraint maps (see Appendices D and E [map pockets]).

Data typically displayed on the constraint map includes, but is not limited to:

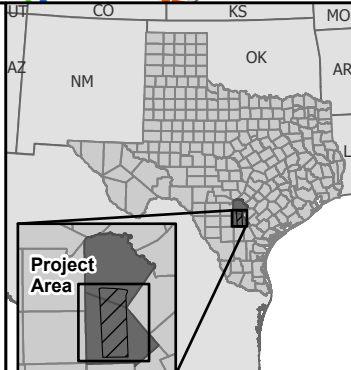
- Major land jurisdictions and uses
- Major roads, including local roads, county roads, Farm-to-Market (FM) roads, United States Highways (US Hwy), State Highways (SH), and Interstate Highways (IH)
- Existing transmission line and pipeline corridors
- Airports, private airstrips, and heliports
- Communication towers
- Recreational areas
- Major political subdivision boundaries
- Lakes, reservoirs, rivers, streams, canals, and ponds
- FEMA 100-year floodplains
- NWI mapped wetlands
- Mobile irrigation systems
- Wells (including identifiable water, oil, and gas)
- Special Management Areas



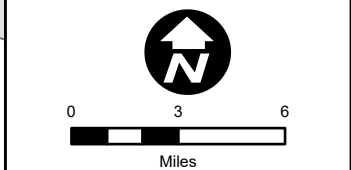
- Project Station
- Study Area Boundary
- Existing Substation
- Existing 69 kV Transmission Line
- Existing 138 kV Transmission Line
- Existing 345 kV Transmission Line

- Private Airport
- Public Airport
- Heliport
- Interstate Highway
- US Highway
- State Highway
- Farm-to-Market Road
- Railroad

- Waterbody
- City Limit
- County Boundary



HOWARD ROAD TO SAN MIGUEL
345 kV TRANSMISSION LINE
PROJECT
FIGURE 2-1
STUDY AREA



Date: 8/20/2024

This page left blank intentionally.

2.4 Agency Consultation

In consultation with CPS Energy and STEC, POWER developed a list of federal, state, and local regulatory agencies, elected officials, and organizations to receive a consultation letter regarding the Project. The purpose of the letter was to inform the various agencies and officials of the Project and provide them with an opportunity to provide information regarding resources and potential issues within the study area. A list of agencies contacted, and a summary of responses are included in Section 5.0. Copies of all correspondence with the various state/federal regulatory agencies and local/county officials and departments are included in Appendix A.

2.5 Field Reconnaissance

Reconnaissance surveys of the study area (from public viewpoints) were conducted by POWER personnel to confirm the findings of the research and data collection activities, identified changes in land use occurring after the date of the aerial photography and to identify potential unknown constraints that may not have been previously noted in the data. Reconnaissance surveys of the study area were conducted by POWER personnel on February 5, 2024 through February 7, 2024, and July 1, 2024 through July 3, 2024.

2.6 Selection of Preliminary Route Segments

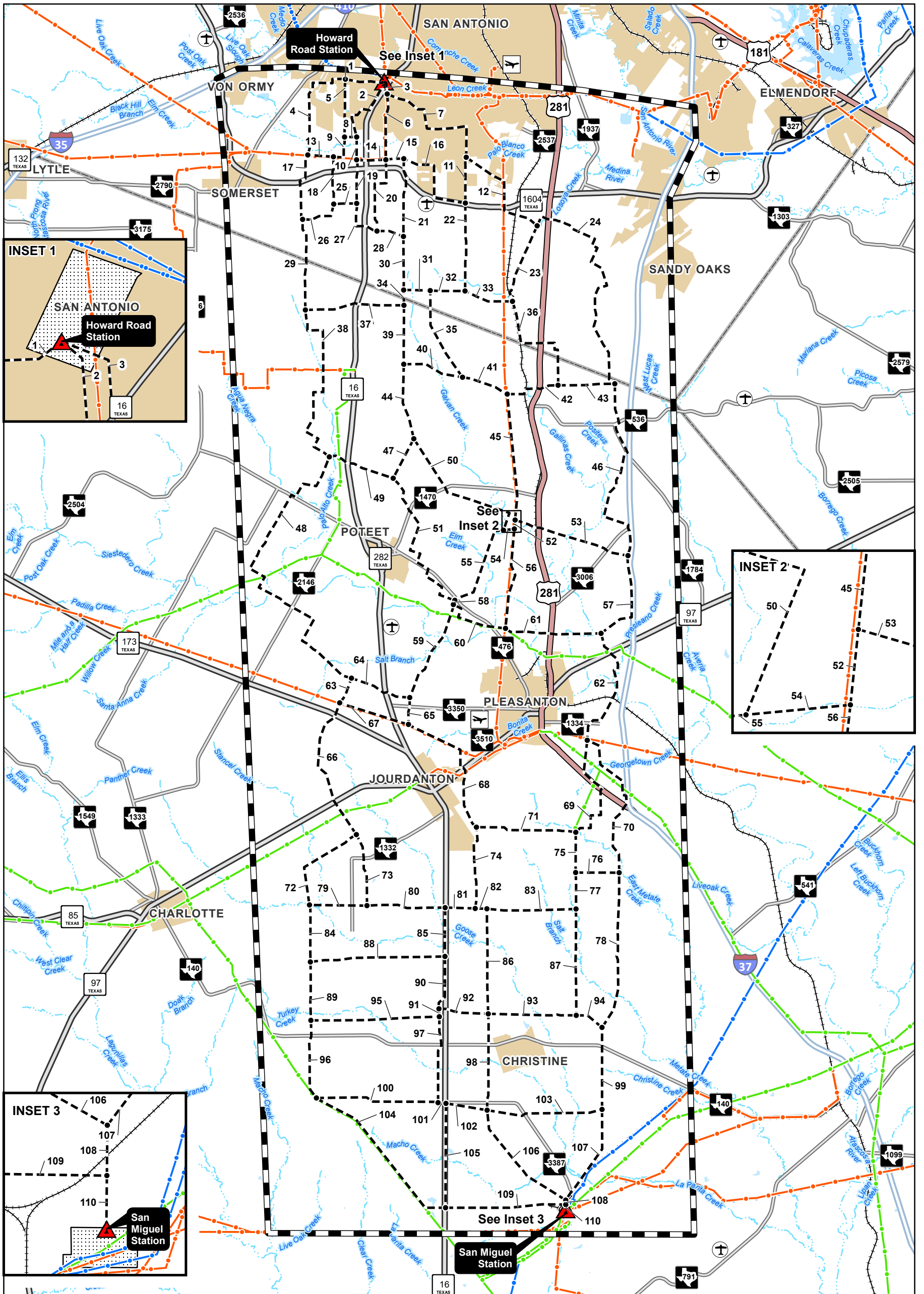
Preliminary alternative route segments were identified by POWER with input from CPS Energy and STEC by using the environmental and land use constraint map while considering resource sensitivity. The preliminary route segments were developed based upon maximizing the use of opportunity areas while avoiding areas of higher environmental constraint or conflicting land uses. Existing aerial photography and USGS topographic maps were used in conjunction with constraints superimposed to identify potential locations of preliminary route segment centerlines.

The preliminary alternative route segments were presented to CPS Energy and STEC for review and comment. The preliminary alternative route segments were reviewed in accordance with PURA § 37.056 (c)(4)(A)-(D), 16 TAC § 25.101, including the PUC's policy of prudent avoidance, consistency with CPS Energy's transmission line routing manual, and STEC's general routing procedures. It was POWER's intent to identify an adequate number of environmentally acceptable and geographically diverse preliminary alternative route segments while considering such factors as community values, recreational and park areas, historical and aesthetic values, environmental integrity, engineering constraints, costs, route length utilizing and parallel to existing compatible corridors or parallel to apparent property boundaries, and prudent avoidance. The process was iterative. CPS Energy, STEC, and POWER continually reviewed the preliminary alternative route segments and made refinements as more information became available.

2.7 Open House Public Meeting

CPS Energy, STEC, and POWER ultimately identified 110 preliminary alternative route segments that were then presented to the public at open house meetings held on April 2, 2024, and April 4, 2024. The 110 preliminary alternative route segments presented at the open house meetings are shown on Figure 2-2. Following the open houses, CPS Energy and STEC continued to receive feedback from mailed questionnaire responses, emails, phone calls, and additional landowner-requested meetings.

Based on input, comments, and information received by CPS Energy, STEC, and POWER during and subsequent to the public open house meetings, POWER conducted an analysis of the public input received. The purpose of the public input analysis was to identify and evaluate the comments and additional information received at and following the public open house meetings. Information obtained during the analysis was used to determine any issues that would warrant modifications to the existing preliminary alternative route segments and/or the identification of new route segments that were not presented at the public open house meetings. A summary of the formal questionnaire responses obtained at and following the public open house meetings is presented in Section 6.0. Copies of the public open house notice letter with map, brochure, frequently asked questions, and questionnaire provided in association with the open houses are located in Appendix B.



Project Components	Existing Utility Features	Transportation Features	Surface Waters
Project Station	69-kV Transmission Line	Interstate Highway	Stream or River
Project Station Boundary	138-kV Transmission Line	US Highway	Water Body
Preliminary Alternative Segment, Node, and Label	345-kV Transmission Line	State Highway	Administrative Features
Study Area Boundary		Farm-to-Market Road	City Limit
		Railroad	County Boundary
		Public Airport	
		Private Airport	

Date: 9/5/2024

HOWARD ROAD TO SAN MIGUEL 345 KV TRANSMISSION LINE PROJECT
Figure 2-2
Preliminary Alternative Segments Presented at Open House Meeting

0 2 4
Miles

This page left blank intentionally.

2.8 Alternative Route Selection

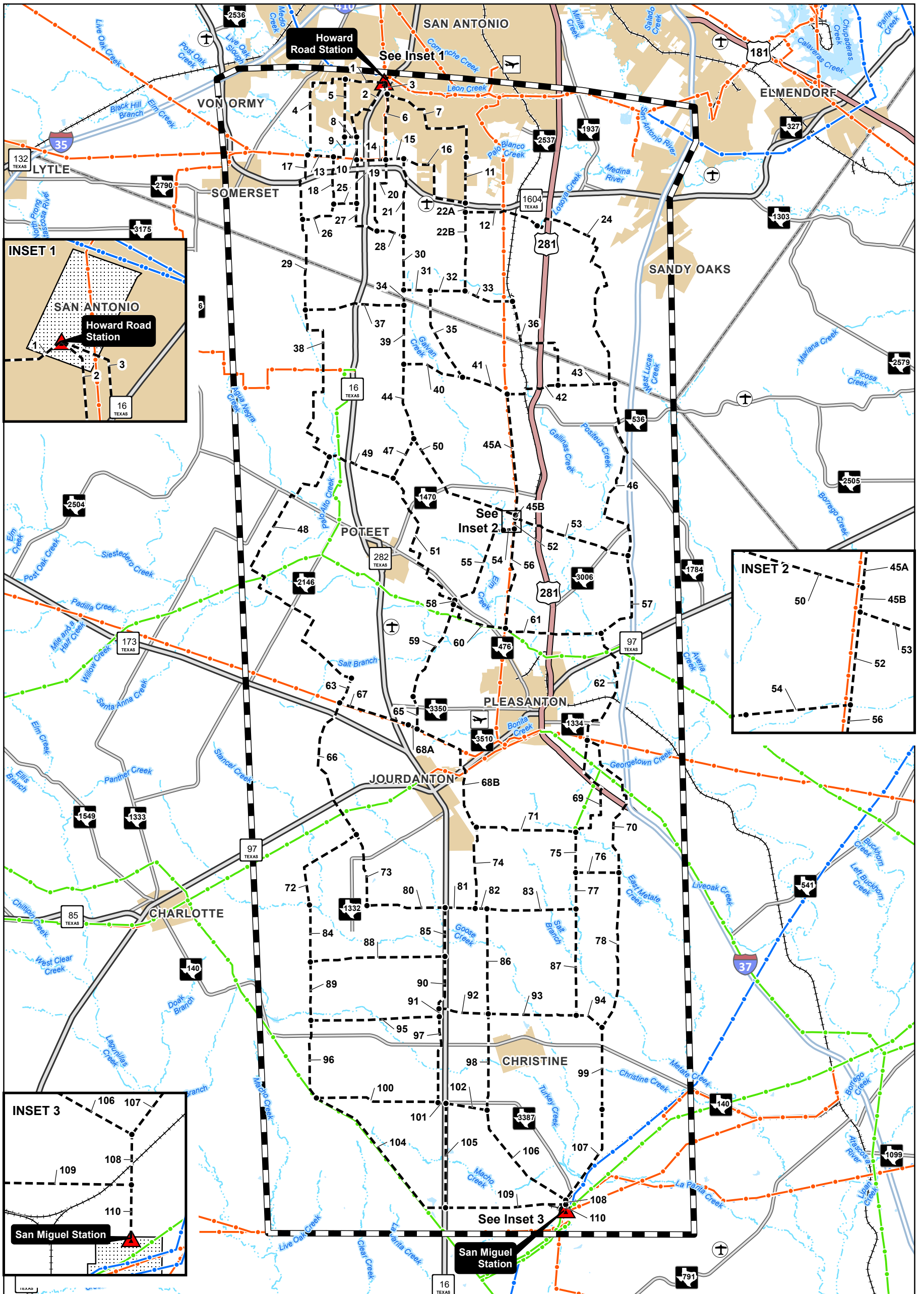
POWER's objective in performing the routing study for the Project was to develop and evaluate numerous primary alternative segments that would form an adequate number of overall reasonable and geographically diverse alternative routes that reflect all of the previously discussed routing considerations. Following POWER's evaluation of the input received regarding the preliminary segments, 109 primary alternative segments were identified and considered for development of alternative routes.

As noted previously, the study area for this Project is a nearly rectangle shaped area approximately 40 miles north to south and 15 miles east to west and encompasses approximately 613 square miles in Atascosa and Bexar Counties. Following the open houses, it was determined that the original study area remained sufficient for development of alternative routes for the Project. Considering the distance to the Project endpoints, the amount of area encompassed, and routing constraints and opportunities (developed areas, active, ongoing development, existing transmission facilities, and current land uses, etc.) the 34 alternative routes evaluated in this EA represent an adequate number of reasonable, viable, geographically varied alternative routes for an approximately 45- to 59-mile project.

Environmental/land use criteria data was collected for all of the primary alternative segments that were used to develop the 34 alternative routes. Additionally, potentially directly affected landowners along all of the 109 primary alternative segments (both outside and within San Antonio) will receive formal notification regarding the Project from CPS Energy and STEC at the time of the filing of the application with the PUC. Therefore, to the extent necessary, various additional alternative routes could be formulated by different combinations of the primary alternative segments. The 109 primary alternative segments included in the application for consideration by the PUC and subsequently by CPS Energy within the city boundaries of San Antonio are depicted on Figure 2-3 and in Appendices D and E. The primary alternative segments comprising each of the 34 alternative routes are presented in Table 2-1.

TABLE 2-1 PRIMARY ALTERNATIVE ROUTE COMPOSITION AND LENGTH

PRIMARY ALTERNATIVE ROUTES	ALTERNATIVE ROUTE SEGMENT COMPOSITION	TOTAL LENGTH IN MILES
A	1-5-8-10-19-27-28-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110	47.77
B	1-5-9-18-26-29-38-48-63-66-72-84-89-95-97-101-102-106-108-110	56.67
C	2-10-19-25-26-29-37-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110	50.71
D	2-10-19-25-26-29-38-48-63-66-72-84-89-96-100-101-102-106-108-110	55.95
E	2-10-19-25-26-29-38-48-63-66-72-84-89-96-104-109-110	55.81
F	2-10-19-25-26-29-38-48-63-66-73-80-81-82-86-98-106-108-110	53.42
G	2-10-19-25-26-29-38-48-63-67-68A-68B-74-82-86-98-106-108-110	52.23
H	2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110	50.05
I	2-10-19-27-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110	50.81
J	2-8-9-13-17-29-38-48-63-66-72-84-88-90-91-97-101-105-109-110	58.92
K	3-6-14-19-27-28-30-31-35-41-45A-45B-52-56-61-62-70-78-99-107-108-110	49.78
L	3-6-15-16-22A-22B-32-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110	49.02
M	3-6-15-21-30-31-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110	46.99
N	3-6-15-21-30-34-39-40-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110	47.47
O	3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-91-97-101-102-106-108-110	47.60
P	3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-92-93-94-99-107-108-110	50.48
Q	3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-83-87-94-99-107-108-110	48.23
R	3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110	45.32
S	3-6-15-21-30-34-39-44-47-51-58-60-61-62-70-78-99-107-108-110	49.05
T	3-6-15-21-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110	47.90
U	3-6-20-28-30-31-35-41-45A-45B-52-56-61-62-69-75-77-87-94-99-107-108-110	49.15
V	3-6-20-28-30-31-35-41-45A-45B-53-57-62-69-75-76-78-99-107-108-110	50.47
W	3-6-20-28-30-31-35-41-45A-45B-53-57-62-69-75-77-87-94-99-107-108-110	49.44
X	3-6-20-28-30-31-35-41-45A-45B-53-57-62-70-76-77-87-94-99-107-108-110	50.85
Y	3-6-20-28-30-31-35-41-45A-45B-53-57-62-70-78-99-107-108-110	48.87
Z	3-6-20-28-30-34-39-40-41-45A-45B-52-56-61-62-70-78-99-107-108-110	49.05
AA	3-6-20-28-30-34-39-40-41-45A-45B-53-57-62-70-78-99-107-108-110	49.34
AB	3-6-20-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110	49.88
AC	3-6-20-28-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110	48.35
AD	3-6-20-28-30-34-39-44-50-45B-53-57-62-70-78-99-107-108-110	48.64
AE	3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110	51.03
AF	3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110	50.66
AG	3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110	50.64
AH	1-4-17-29-38-48-63-66-72-84-89-96-104-109-110	56.19



Project Components	Existing Utility Features	Transportation Features	Surface Waters
Project Station	69-kV Transmission Line	Interstate Highway	Stream or River
Project Station Boundary	138-kV Transmission Line	US Highway	Water Body
Primary Alternative Segment, Node, and Label	345-kV Transmission Line	State Highway	Administrative Features
Study Area Boundary		Farm-to-Market Road	City Limit
		Railroad	County Boundary
		Public Airport	
		Private Airport	

HOWARD ROAD TO SAN MIGUEL 345 KV TRANSMISSION LINE PROJECT
Figure 2-3
Resulting Primary Alternative Segments Following the Open House Meeting

0 2 4
Miles

Date: 9/5/2024

This page left blank intentionally.

2.9 Alternative Route Evaluation

In evaluating each of the 34 alternative routes, a variety of environmental criteria were considered. These criteria were selected because of their relevance to public and regulatory environmental concerns associated with the construction of transmission lines in a suburban and rural setting. Many of these criteria are factors addressed by PURA § 37.056(c)(4), 16 TAC § 25.101(b)(3)(B) for granting of a CCN, CPS Energy's transmission line routing manual, STEC's general routing procedures, as well as relevant questions in the PUC's CCN application. The environmental criteria evaluated for this EA are presented in Table 2-2. The 34 alternative routes are shown in relation to environmental and other land use constraints on a USGS topographic based map in Appendix D and in relation to habitable structures and other land use features on an aerial imagery base map in Appendix E, and constitute, for the purposes of this analysis, the alternative routes evaluated in this EA. The analysis of each alternative route involved inventorying and tabulating the number or quantity of each environmental criterion located along each alternative route (e.g., number of habitable structures within 500 feet, length parallel to roads). The number or amount of each factor was determined by POWER using GIS layers, maps, recent aerial photography, and field verification from publicly accessible areas where practical. Potential environmental impacts are addressed in Section 4.0 of this report.

The advantages and disadvantages of each alternative route were then evaluated by POWER. Specifically, POWER conducted an evaluation that was a comparison of 34 alternative routes based upon the measurement of land use, aesthetics, ecology, and cultural resource criteria addressed in Section 4.0. This information was made available to CPS Energy and STEC, along with its evaluation of engineering, construction, maintenance, operational factors, and cost to determine CPS Energy and STEC's recommendation of a route that best addresses the requirements of PURA and PUC Substantive Rules.

TABLE 2-2 LAND USE AND ENVIRONMENTAL EVALUATION CRITERIA

EVALUATION CRITERIA	
Land Use	
1	Length of alternative route (miles)
2	Number of habitable structures ¹ within 500 feet of the route centerline
3	Length of ROW using existing transmission line ROW
4	Length of ROW parallel and adjacent to existing transmission line ROW
5	Length of ROW parallel and adjacent to other existing ROW (roadways, railways, etc.)
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)
7	Sum of evaluation criteria 4, 5, and 6
8	Percent of evaluation criteria 4, 5, and 6
9	Length of ROW across parks/recreational areas ³
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline
11	Length of ROW across cropland
12	Length of ROW across pasture/rangeland
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)
15	Length of route across gravel pits, mines, or quarries
16	Length of ROW parallel and adjacent to pipelines ⁴

TABLE 2-2 LAND USE AND ENVIRONMENTAL EVALUATION CRITERIA

EVALUATION CRITERIA	
17	Number of pipeline crossings ⁴
18	Number of transmission line crossings
19	Number of US and state highway crossings
20	Number of FM or RM road crossings
21	Number of FAA registered public/military airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline
22	Number of FAA registered public/military airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline
23	Number of private airstrips within 10,000 feet of the ROW centerline
24	Number of heliports within 5,000 feet of the ROW centerline
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline
27	Number of identifiable existing water wells within 200 feet of the ROW centerline
28	Number of oil and gas wells within 200 feet of the ROW centerline
Aesthetics	
29	Estimated length of ROW within foreground visual zone ⁶ of US and state highways
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads
31	Estimated length of ROW within foreground visual zone ⁶ [7] of parks/recreational areas ³
Ecology	
32	Length of ROW through upland woodlands/brushlands
33	Length of ROW through bottomland/riparian woodlands
34	Length of ROW across NWI mapped wetlands
35	Length of ROW across known critical habitat of federally listed threatened or endangered species
36	Length of ROW across open water (lakes, ponds)
37	Number of stream and river crossings
38	Length of ROW parallel (within 100 feet) to streams or rivers
39	Length of ROW across Edwards Aquifer Contributing Zone
40	Length of ROW across FEMA mapped 100-year floodplain
Cultural Resources	
41	Number of cemeteries within 1,000 feet of the ROW centerline
42	Number of recorded cultural resource sites crossed by ROW
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline
44	Number of resources determined eligible for or NRHP properties crossed by ROW
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline
46	Length of ROW across areas of high archeological site potential

Notes: All length measurements are shown in miles unless noted otherwise.

¹ Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, places of worship, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230 kV or more.

² Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries criteria.

³ Defined as parks and recreational areas owned by a governmental body or an organized group, club, or place of worship within 1,000 feet of the centerline of the project.

⁴ Only steel pipelines six inches and greater in diameter carrying petrochemicals were quantified in the pipeline crossing and paralleling calculations.

⁵ As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶ One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷ One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria.

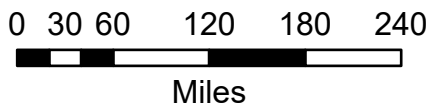
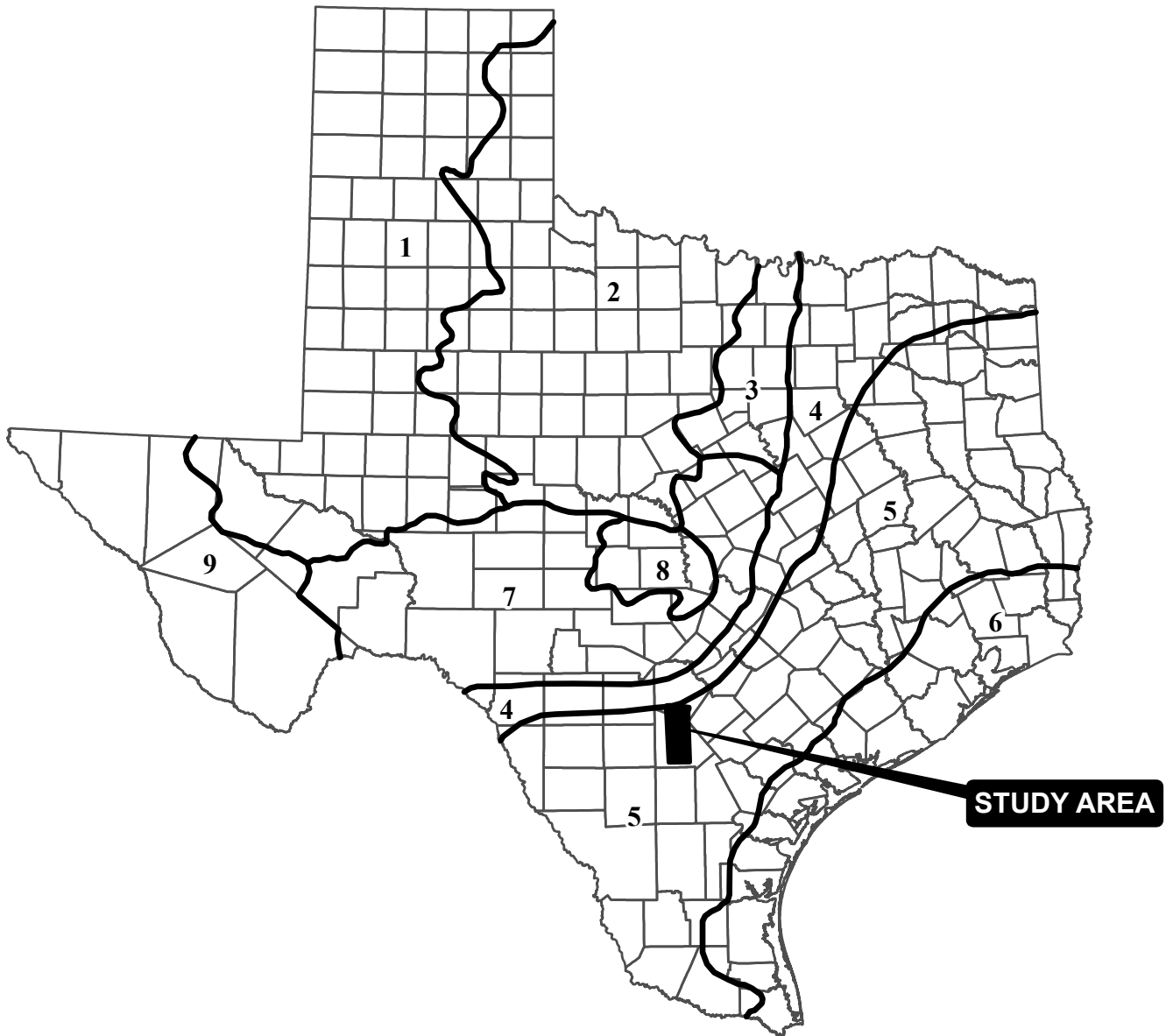
3.0 NATURAL RESOURCES/ENVIRONMENTAL INTEGRITY

3.1 Natural Resources/Environmental Integrity

Resource inventory data were collected for physiography, geology, soils, surface waters, wetlands, and ecological resource areas. These data were obtained from readily available sources and mapped within the study area utilizing GIS layers. Additional data collection activities consisted of file and record reviews conducted utilizing the various state and federal regulatory agencies, a review of published literature, and review of various maps and aerial photographs. Maps and data layers reviewed include but were not limited to: USGS 7.5-minute topographic maps, aerial imagery, Bureau of Economic Geology (BEG) Geologic Atlas, USFWS NWI maps, and county appraisal district land parcel boundary maps.

3.1.1 Physiography and Geology

As shown in Figure 3-1, the study area is located within the Blackland Prairies and Interior Coastal Plains physiographic regions (BEG 1996). Furthermore, the study area is located within the Gulf Coastal Plains physiographic province and the Blackland Prairies and Interior Coastal Plains physiographic subprovinces (BEG 1996). The Gulf Coastal Plains province include deltaic sand, silts, and clays that erode to nearly flat grasslands where trees are uncommon except locally along streams (BEG 1996). The Blackland Prairies subprovince is generally characterized by a gently rolling terrain over chalk and marl bedrock with elevations ranging between 450 and 1,000 feet above mean sea level (BEG 1996). The Interior Coastal Plain subprovince is comprised of alternating belts of resistant uncemented sands among weaker shales that erode into long, sandy ridges (BEG 1996). Elevations within the study area generally decrease from northwest to southeast and range between approximately 400 and 800 feet above mean sea level (USGS 2024a).



Source: Texas Bureau of Economic Geology, 1996

Legend

- Physiographic Region Boundary
- 1 High Plains
- 2 North-Central Plains
- 3 Grand Prairie
- 4 Blackland Prairies
- 5 Interior Coastal Plains
- 6 Gulf Coastal Prairies
- 7 Edwards Plateau
- 8 Central Texas Uplift
- 9 Trans-Pecos Basin and Range
- County Boundary

**HOWARD ROAD TO SAN MIGUEL
345-KV TRANSMISSION LINE
PROJECT**

FIGURE 3-1

LOCATION OF THE STUDY AREA
IN RELATION TO THE
PHYSIOGRAPHIC
REGIONS OF TEXAS



Date: 8/7/2024

There are 10 geologic formations underlying the study area: Leona Formation, Reklaw Formation, Weches Formation, Cook Mountain Formation, Yegua Formation, Manning, Wellborn, and Caddell Formations (undivided), Carrizo Sand, Queen City Sand, Sparta Sand, and Uvalde Gravel (USGS 2024b).

- The Leona Formation has fine calcareous silt grading down into coarse gravel (USGS 2024b).
- The Reklaw Formation is comprised of sandstone and clay that is fine to medium grained and a thickness of up to 50 feet (USGS 2024b).
- The Weches Formation is comprised of greensand, sand, and clay and a thickness of up to 30 feet (USGS 2024b).
- The Cook Mountain Formation is comprised of clay and sandstone that is slightly silty. The sandstone is near top and base of formation and is very fine grained (USGS 2024b). Marine megafossils and microfossils are abundant. The thickness of the Cook Mountain Formation ranges from 200 to 350 feet.
- The Yegua Formation is comprised of clay and sandstone that is fine grained with some instances of fossilized wood (USGS 2024b). The thickness of the Yegua Formation ranges from 400 to 1,050 feet and thickens the more south the formation goes.
- The Manning, Wellborn, and Caddell Formations are formations that are geologically grouped together (USGS 2024b).
 - The Manning Formation is comprised of clay, tuff, and sandstone with a thickness that ranges from 250 to 300 feet.
 - The Wellborn Formation includes sandstone that is fine to coarse grained and often contains abundant borings of worms and other invertebrates. This formation can have a thickness of up to 150 feet.
 - The Caddell Formation includes siltstone, clay, and sandstone that are all very fine grained and has a thickness of 50 feet.
- Carrizo Sand is comprised of sandstone that is medium to very coarse grained and becomes very fine towards the surface. The thickness of this formation ranges from 140 to 200 feet (USGS 2024b).
- Queen City Sand is comprised of sandstone and siltstone that is fine to medium grained with a thickness that ranges from 250 to 500 feet (USGS 2024b).
- Sparta Sand is comprised of sandstone that is very fine to fine grained with some silty clay partings and a thickness that ranges from 150 to 250 feet (USGS 2024b).
- Uvalde Gravel includes caliche-cemented gravel with well-rounded pebbles and a thickness that can reach 30 feet (USGS 2024b).

Significant Geological Features

Several potential geologic features affecting the construction and operation of a transmission line were evaluated within the study area. Geologic areas reviewed included potential karst, known cave locations, fault lines, active or abandoned mining locations, aggregate operation locations, and potential subsurface contamination. Subsurface contamination (soils or groundwater) from previous commercial activities or dumps/landfills may require additional considerations during routing and/or may create a potential hazard during construction activities.

The study area is outside of known karst formation locations (Texas Speleological Survey [TSS] 2007). Additionally, review of TSS did not identify any named caves occurring within the study area (TSS 1966).

There are several normal faults throughout the study area, primarily in the central and northern sections (USGS 2024b). According to the Railroad Commission of Texas (RRC), there is one active lignite coal mine operation (RRC 2023a, 2023b, and 2023c) in the southeast portion of the study area and one mine reclamation operation (RRC 2023a, 2023b, and 2023c) in the southeastern corner of the study area. No active or exploratory uranium mines (RRC 2023d) were identified within the study area. No historical abandoned mining locations (RRC 2015) were identified within the study area. Several aggregate production operations (BEG 2021) were primarily identified in the northern portion of the study area. Review of the state superfund site database indicated that two TCEQ-regulated superfund sites are within the northwest section of the study area in Bexar County (TCEQ 2023a). One superfund site is located in Van Ormy and was a previous commercial sand and clay pit used for waste disposal (TCEQ 2023b). The other superfund site is located in Somerset and was a former oil refinery now contaminated by hydrocarbons (TCEQ 2023c). No federal superfund sites were identified within the study area (USEPA 2023). No state solid waste facilities (TCEQ 2023d) were identified within the study area.

3.1.2 Soils

Soil Associations

Natural Resources Conservation Service (NRCS) Web Soil Survey data (NRCS 2024) was reviewed to identify and characterize mapped soils within the study area. Soil map units represent a collection of delineated areas defined and named the same in terms of their soil components (e.g., series). Mapped soils within the study area are listed in Table 3-1, including a brief description of the soil unit, landform of occurrence, and hydric and prime farmland classification status.

TABLE 3-1 MAPPED SOIL UNITS OCCURRING WITHIN THE STUDY AREA

SOIL MAP UNIT	LANDFORM	HYDRIC	PRIME FARMLAND
Atascosa County			
Aluf-Hitilo association, gently undulating	Sand sheets	No	Farmland of statewide importance
Amphion sandy clay loam, 0 to 1 percent slopes	Paleoterraces	No	All areas are prime farmland
Amphion sandy clay loam, 1 to 3 percent slopes	Paleoterraces	No	All areas are prime farmland
Campbellton loam, 1 to 3 percent slopes	Ridges	No	Not prime farmland
Campbellton loam, 3 to 5 percent slopes	Ridges	No	Not prime farmland
Christine soils, occasionally flooded	Floodplains	No	Not prime farmland
Coy sandy clay loam, 1 to 3 percent slopes	Plains, draws on interfluves	No	All areas are prime farmland
Dilley fine sandy loam, 1 to 5 percent slopes	Interfluves	No	Not prime farmland
Duval loamy fine sand, 0 to 5 percent slopes	Low hills	No	Prime farmland if irrigated
Duval very fine sandy loam, 1 to 3 percent slopes	Low hills	No	Prime farmland if irrigated
Elmendorf-Denhawken complex, 1 to 4 percent slopes	Interfluves	No	Farmland of statewide importance, if irrigated
Fashing clay, 1 to 5 percent slopes	Ridges, interfluves	No	Not prime farmland
Floresville fine sandy loam, 0 to 1 percent slopes	Ridges	No	Prime farmland if irrigated
Floresville fine sandy loam, 1 to 3 percent slopes	Ridges	No	Prime farmland if irrigated
Floresville fine sandy loam, 1 to 5 percent slopes, eroded	Ridges	No	Not prime farmland
Hanis sandy clay loam, 0 to 1 percent slopes	Interfluves	No	All areas are prime farmland
Hanis sandy clay loam, 1 to 3 percent slopes	Interfluves	No	All areas are prime farmland
Hanis sandy clay loam, 3 to 5 percent slopes	Ridges, interfluves	No	All areas are prime farmland
Hindes very gravelly loam, 1 to 8 percent slopes	Paleoterraces	No	Not prime farmland
Imogene fine sandy loam, 0 to 2 percent slopes	Draws, stream terraces	No	Not prime farmland
Jourdanton fine sandy loam, 0 to 1 percent slopes	Stream terraces	No	Prime farmland if irrigated
Laparita loam, 0 to 1 percent slopes	Interfluves	No	Not prime farmland
Laparita loam, 1 to 3 percent slopes	Ridges, interfluves	No	Not prime farmland
Miguel fine sandy loam, 1 to 3 percent slopes	Low hills	No	Prime farmland if irrigated
Monteola clay, 0 to 1 percent slopes	Hills	No	All areas are prime farmland
Monteola clay, 1 to 3 percent slopes	Hills	No	All areas are prime farmland
Monteola clay, saline, 1 to 3 percent slopes	Hills	No	Not prime farmland
Monteola clay, 3 to 5 percent slopes	Hills	No	All areas are prime farmland
Nusil loamy fine sand, 0 to 3 percent slopes	Stream terraces	No	Farmland of statewide importance
Nusil-Rhymes association, 0 to 5 percent slopes	Dunes and interdunes on stream terraces	No	Farmland of statewide importance
Odem loamy fine sand, overwash	Natural levees	No	Prime farmland if irrigated
Odem fine sandy loam, occasionally flooded	Natural levees	No	Prime farmland if irrigated

TABLE 3-1 MAPPED SOIL UNITS OCCURRING WITHIN THE STUDY AREA

SOIL MAP UNIT	LANDFORM	HYDRIC	PRIME FARMLAND
Papalote fine sandy loam, 0 to 1 percent slopes	Terraces	No	Prime farmland if irrigated
Pettus loam, 1 to 5 percent slopes	Interfluves, ridges	No	Prime farmland if irrigated
Pits	-	No	Not prime farmland
Poteet soils, occasionally flooded	Floodplains	No	Prime farmland if irrigated
Poth loamy fine sand, 0 to 3 percent slopes	Stream terraces	No	Prime farmland if irrigated
Sayers soils, frequently flooded	Floodplains	No	Not prime farmland
Sinton soils, frequently flooded	Floodplains	No	Not prime farmland
Tiocano clay, cool, 0 to 1 percent slopes, occasionally ponded	Closed depressions	No	Not prime farmland
Tordia clay, 1 to 4 percent slopes	Draws	No	All areas are prime farmland
Webb fine sandy loam, 1 to 3 percent slopes	Ridges	No	Prime farmland if irrigated
Webb fine sandy loam, 3 to 5 percent slopes	Ridges	No	Prime farmland if irrigated
Weigang sandy clay loam, 1 to 5 percent slopes	Interfluves	No	Not prime farmland
Wilco loamy fine sand, 0 to 3 percent slopes	Interfluves	No	Prime farmland if irrigated
Wilco loamy fine sand, 3 to 5 percent slopes	Interfluves	No	Prime farmland if irrigated
Bexar County			
CfA – Miguel fine sandy loam, 0 to 1 percent slopes	Low hills	No	Prime farmland if irrigated
CfB – Miguel fine sandy loam, 1 to 3 percent slopes	Low hills	No	Prime farmland if irrigated
CkC2 – Miguel fine sandy loam, 2 to 5 percent slopes, eroded	Low hills	No	Not prime farmland
DmC – Duval loamy fine sand, 0 to 5 percent slopes	Low hills	No	Prime farmland if irrigated
DnB – Duval very fine sandy loam, 1 to 3 percent slopes	Low hills	No	Prime farmland if irrigated
DnC – Duval fine sandy loam, 3 to 5 percent slopes	Interfluves	No	Prime farmland if irrigated
DsC2 – Duval fine sandy loam, 3 to 5 percent slopes, eroded	Interfluves	No	Not prime farmland
EuC – Aluf sand, 0 to 5 percent slopes	Sand sheets	No	Farmland of statewide importance
Fr – Loire clay loam, 0 to 2 percent slopes, occasionally flooded	Floodplains	No	Not prime farmland
Go – Gowen clay loam, 0 to 2 percent slopes, occasionally flooded	Floodplains	No	Not prime farmland
Gu – Gullied land-Sunev complex, 3 to 20 percent slopes	Ridges/Stream terraces	No	Not prime farmland
HgD – Rock outcrop-Olmos complex, 5 to 25 percent slopes	Ridges/Hills	No	Not prime farmland
HkB – Wilco loamy fine sand, 0 to 3 percent slopes	Interfluves	No	Prime farmland if irrigated
HkC – Wilco loamy fine sand, 3 to 5 percent slopes	Interfluves	No	Prime farmland if irrigated
HkC2 – Wilco loamy fine sand, 3 to 5 percent slopes, eroded	Interfluves	No	Not prime farmland
HnC2 – Heiden clay, 3 to 5 percent slopes, eroded	Ridges	No	Not prime farmland
HtA – Branyon clay, 0 to 1 percent slopes	Stream terraces	No	All areas are prime farmland
HtB – Branyon clay, 1 to 3 percent slopes	Stream terraces	No	All areas are prime farmland
HuB – Houston Black gravelly clay, 1 to 3 percent slopes	Ridges	No	All areas are prime farmland
KaB – Atco loam, 1 to 3 percent slopes	Erosion remnants on stream terraces	No	Farmland of statewide importance, if irrigated
KaC – Atco loam, 3 to 5 percent slopes	Erosion remnants on stream terraces	No	Farmland of statewide importance, if irrigated

TABLE 3-1 MAPPED SOIL UNITS OCCURRING WITHIN THE STUDY AREA

SOIL MAP UNIT	LANDFORM	HYDRIC	PRIME FARMLAND
KcC2 – Atco clay loam, 3 to 5 percent slopes, eroded	Erosion remnants on stream terraces	No	Not prime farmland
LfB – Leming loamy fine sand, 0 to 3 percent slopes	Stream terraces on drainageways	No	Prime farmland if irrigated
LvA – Lewisville silty clay, 0 to 1 percent slopes	Stream terraces	No	All areas are prime farmland
LvB – Lewisville silty clay, 1 to 3 percent slopes	Stream terraces	No	All areas are prime farmland
LvC – Lewisville silty clay, 3 to 5 percent slopes, eroded	Stream terraces	No	Not prime farmland
OrA – Laparita clay loam, 0 to 1 percent slopes	Interfluves	No	Not prime farmland
OrB – Laparita clay loam, 1 to 3 percent slopes	Ridges on interfluves	No	Not prime farmland
PaC – Patrick soils, 3 to 5 percent slopes, rarely flooded	Paleoterraces	No	Not prime farmland
Pt – Pits and Quarries, 1 to 90 percent slopes	-	No	Not prime farmland
SaB – San Antonio clay loam, 1 to 3 percent slopes	Stream terraces	No	All areas are prime farmland
SaC – San Antonio clay loam, 3 to 5 percent slopes	Stream terraces	No	All areas are prime farmland
SaC2 – San Antonio clay loam, 3 to 5 percent slopes, eroded	Stream terraces	No	Not prime farmland
Tc – Tinn clay, 0 to 1 percent slopes, occasionally flooded	Floodplains	No	Not prime farmland
Tf – Tinn and Frio soils, 0 to 1 percent slopes, frequently flooded	Floodplains	No	Not prime farmland
VaB – Sunev loam, 1 to 3 percent slopes	Stream terraces	No	Farmland of statewide importance
VcA – Sunev clay loam, 0 to 1 percent slopes	Stream terraces	No	Farmland of statewide importance
VcB – Sunev clay loam, 1 to 3 percent slopes	Stream terraces	No	Farmland of statewide importance
VcC – Sunev clay loam, 3 to 5 percent slopes	Stream terraces	No	Farmland of statewide importance
WbB – Floresville fine sandy loam, 1 to 3 percent slopes	Ridges	No	Prime farmland if irrigated
WbC – Floresville fine sandy loam, 3 to 5 percent slope	Ridges	No	Prime farmland if irrigated
WeC2 – Floresville fine sandy loam, 1 to 5 percent slopes, eroded	Ridges	No	Not prime farmland
WeC3 – Floresville fine sandy loam, 3 to 5 percent slopes, severely eroded	Ridges on interfluves	No	Not prime farmland
WmA – Willacy loam, 0 to 1 percent slopes	Interfluves	No	All areas are prime farmland
WmB – Willacy loam, 1 to 3 percent slopes	Interfluves	No	All areas are prime farmland
Za – Zavala fine sandy loam, 0 to 2 percent slopes, occasionally flooded	Floodplain steps	No	Not prime farmland
Zg – Zavala and Gowen soils, 0 to 2 percent slopes, frequently flooded	Floodplains	No	Not prime farmland

Source: NRCS 2024.

Hydric Soils

The National Technical Committee for Hydric Soils defines hydric soils as soils formed under conditions of saturation, flooding, or ponding long enough during growing seasons to develop anaerobic conditions in the upper

soil horizons. These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support growth and reproduction of hydrophytic vegetation (NRCS 2024).

Map units dominantly comprised of hydric soils might have small inclusions of non-hydric soils in higher areas of the landform. Conversely, map units dominated by non-hydric soils might have small inclusions of hydric soils in lower areas of the landform. According to NRCS Web Soil Survey data (NRCS 2024) for the study area, none of the soils mapped within the study area are considered hydric.

Prime Farmland Soils

The United States Secretary of Agriculture, within U.S.C. §7-4201(c)(1)(A), defines prime farmland soils as those soils that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. They have the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. Soils designated as farmland of statewide importance are potential prime farmlands with soils that meet most of the requirements of prime farmland but fail due to the absence of sufficient natural moisture or water management facilities. The United States Department of Agriculture (USDA) would consider these soils prime farmland if such practices were installed. According to NRCS Web Soil Survey data (NRCS 2024) for the study area, there are multiple soil map units designated as prime farmland and as farmland of statewide importance within the study area.

Transmission line projects are typically not subject to the requirements of the Farmland Protection Policy Act unless they are associated with federal funding, which the proposed Project is not. Additionally, transmission line construction is not typically considered a conversion of prime farmlands as the site can still be used for farming after construction is complete.

3.1.3 Water Resources

Surface Water

The study area is located within the San Antonio and Nueces River Basins and within the Upper-San Antonio, Medina Atascosa, and San Miguel River Sub-Basins (TPWD 2023a). Named surface waters within the study area include: Upper San Antonio River, Upper Atascosa River, Atascosa River, Medina River (below Medina Diversion Lake), Turkey Creek, Souse Creek, East Metate Creek, Metate Creek, Macho Creek, Georgetown Creek, Stancel Creek, Palo Alto Creek, La Parita Creek, Clear Creek, Gallinas Creek, Goose Creek, Elm Creek, La Jarita Creek, Palo Blanco Creek, Galvan Creek, Live Oak Creek, Positeus Creek, Comanche Creek, Losoya Creek, Bonita Creek, Post Oak Creek, Agua Negra Creek, Caballos Creek, Christine Creek, Presleano Creek, West Lucas Creek, Averia Creek, Lower Leon Creek, Medio Creek, Live Oak Slough, Salt Branch, Strickland

Lake Number 1, Strickland Tank, Rincon Tank, Vat Tank, Sacatosa Tank, Brahma Tank, Bonta Lake, Palmer Ranch Lake, Peeler Lake, Peeler Lake Number 1, Quillian Lake, Baker Lake, Scheidt Lake, Pax Lake, Marshall Lake, Mitchell Lake, Blue Wing Lake, Victor Braunig Lake, Schorsch Lake, McLerran Lake, Brown Lake, and Williams Lake (USGS 2024a). Additional unnamed surface waters within the study area include numerous streams, ditches, canals, lakes, and ponds.

Special Status Waters

Under 31 TAC § 357.43 and 31 TAC § 358.2, TPWD has designated Ecologically Significant Stream Segments (ESSS) based on habitat value, threatened and endangered species, species diversity, and aesthetic value criteria (TPWD 2023b). No designated ESSS were identified within the study area (TPWD 2023b).

In accordance with Section 303(d) and 304(a) of the Clean Water Act (CWA), the TCEQ identifies surface waters for which effluent limitations are not stringent enough to meet water quality standards and for which the associated pollutants are suitable for measurement by total maximum daily load (TMDL). TMDL is a scientifically derived target for water quality that determines the greatest amount of a particular substance that can be added to a 303(d) and 304(a) waterbody without compromising its health. Review of TCEQ's (2022) Texas Integrated Report of Surface Water Quality indicated the occurrence of six impaired surface waters within the study area. These surface waters include the Upper San Antonio River (segment ID 1911), Upper Atascosa River (segment ID 2118), Atascosa River (segment ID 2118C), Medina River (below Medina Diversion Lake) (segment ID 1903), Lower Leon Creek (segment ID 1906), and Medio Creek (segment ID 1912). Of these six listed impaired waterbodies, only the Upper San Antonio River has a state developed TMDL that has been approved by the USEPA (TCEQ 2007).

Future Surface Water Developments

Review of the 2022 Texas Water Development Board (TWDB) State Water Plan and the 2021 Regional Water Plan for Region L – South Central Texas did not indicate any proposed surface water developments within the study area (TWDB 2022; South Central Texas Regional Water Planning Group [Region L] 2021a and 2021b).

3.1.4 Groundwater

The major ground water aquifers mapped within the study area include the Edwards (Balcones Fault Zone) (subcrop), Trinity (subcrop), and Carrizo-Wilcox (subcrop and outcrop) Aquifers. The Edwards Aquifer consists primarily of partially dissolved limestone is highly permeable. The Edwards Aquifer has an average thickness fluctuating between 200 and 600 feet with an average saturated thickness of over 560 feet. Water quality is hard but fresh and contains very little total dissolved solids (TWDB 2011). The Trinity Aquifer consists primarily of limestone, sand, clay, gravel, and various conglomerates. The average freshwater saturated thickness is

approximately 1,900 feet with total dissolved solids, sulfates, and chloride increasing with the depth of the aquifer (TWDB 2011). The Carrizo-Wilcox Aquifer is primarily composed of sand locally interbedded with gravel silt, clay, and lignite. The average freshwater saturated thickness is 670 feet and commonly has isolated areas of saline groundwater (TWDB 2011). Other ground water resources include numerous domestic and public supply water wells (TWDB 2023 and 1975).

The Edwards Aquifer is divided into three main zones. The study area is located within Edwards Aquifer Artesian Zone where the aquifer is contained between less permeable beds of Del Rio Clay and Upper Glen Rose limestone (Edwards Aquifer Authority [EAA] 2023a). The study area is within District 5 of the EAA (2023b) jurisdictional area. The EAA has regulatory jurisdiction in Bexar County and authorizes groundwater withdrawals for municipal, industrial, and irrigation purposes. The study area is not located within a Subchapter Regulated Area as defined by the EAA Rules (2019). Due to the study area's location occurring outside the Edwards Aquifer Recharge, Transition, and Contributing Zones, the proposed Project does not need to be reviewed by the TCEQ (2020) Edwards Aquifer Protection Program prior to the start of construction.

3.1.5 Floodplains

FEMA's Flood Insurance Rate Maps and National Flood Hazard Layer were reviewed for the study area (FEMA 2023). The 100-year flood (one percent flood or base flood) represents a flood event that has a one percent chance of being equaled or exceeded for any given year. FEMA 100-year floodplain data are mapped throughout the entirety of the study area but are more prominent in association with named surface waters.

3.1.6 Wetlands

Mapped wetlands information was incorporated for the study area from USFWS NWI database (USFWS 2023a). NWI maps are based on topography and interpretation of infrared satellite data and color aerial photographs and are classified under the Cowardin System (Cowardin et al. 1979). Since the date of NWI data mapping, mapped wetland features within the study area may have changed, and actual site conditions may differ in wetland classification, size, or presence. The wetland types identified within the study area are palustrine emergent (PEM), palustrine forested (PFO), and palustrine scrub-shrub (PSS) (USWFS 2023a). Unmapped wetlands may also potentially occur in association with riparian areas near any surface drainage or pond within the study area.

Palustrine Emergent Wetland

PEM wetlands are defined as all non-tidal wetlands dominated by persistent emergent erect, rooted, herbaceous hydrophytes, excluding mosses and lichens, that occur in less than 2.5 meters of water and has a salinity of less than 0.5 parts per trillion (ppt) (Cowardin et al. 1979). Mapped PEM wetlands occur in the central and northern sections of the study area and are associated with depressional topography and floodplains (Google Inc. 2023;

USFWS 2023a). Within the study area dominant species that can potentially occur within PEM wetlands include cattails (*Typha* spp.), sedges (*Carex* spp.), spikerushes (*Eleocharis* spp.), rushes (*Juncus* spp.), bulrushes (*Scirpus* spp.), pondweed (*Potamogeton* spp.), arrowhead (*Sagittaria* spp.), and hornwort (*Ceratophyllum* spp.) (Elliot 2014).

Palustrine Forested Wetland

PFO wetlands include non-tidal wetlands that have less than 2.5-meter water depth and 0.5 ppt salinity and have more than 30% areal coverage of woody vegetation taller than 6.0 meters (Cowardin et al. 1979). Mapped PFO wetlands occur in the central and northern sections of the study area and are associated with denser tree vegetation along streams (Google Inc. 2023; USFWS 2023a). Within the study area plant species potentially occurring in PFO wetlands may include broad-leaved deciduous species such as American elm (*Ulmus americana*), black willow (*Salix nigra*), bur oak (*Quercus macrocarpa*), cedar elm (*Ulmus crassifolia*), common buttonbush (*Cephalanthus occidentalis*), possumhaw (*Ilex decidua*), sugar hackberry (*Celtis laevigata*), swamp privet (*Forestiera acuminata*), sweetgum (*Liquidambar styraciflua*), and water oak (*Quercus nigra*) (Elliot 2014).

Palustrine Scrub-Shrub Wetlands

PSS wetlands include non-tidal wetlands that have less than 2.5-meter water depth and 0.5 ppt salinity and have more than 30% areal coverage of woody vegetation less than 6.0 meters in height (Cowardin et al. 1979). Mapped PSS wetlands occur in the central and northern sections of the study area and are associated with scattered tree vegetation along streams and ponds (Google Inc. 2023; USFWS 2023a). Within the study area potential plant species occurring within PSS wetlands may include honey mesquite (*Prosopis glandulosa*), black willow, western soapberry (*Sapindus saponaria* var. *drummondii*), lotebush (*Ziziphus obtusifolia*), and sugar hackberry (Elliot 2014).

3.1.7 Coastal Management Program

The PUC must comply with Coastal Management Program (CMP) policies when approving CCNs for electric transmission lines that are located within the Coastal Management Zone (CMZ) under the Coastal Zone Management Act of 1972. The study area is not located within the CMZ boundary as defined in 31 TAC § 27.1(a) and this excludes the Project from CMP conditions.

3.1.8 Vegetation

Data and information on ecological resources within the study area were obtained from a variety of sources, including aerial photograph interpretation, field reconnaissance surveys, correspondence with the USFWS, TPWD, published literature, and technical reports.

Ecological Regions

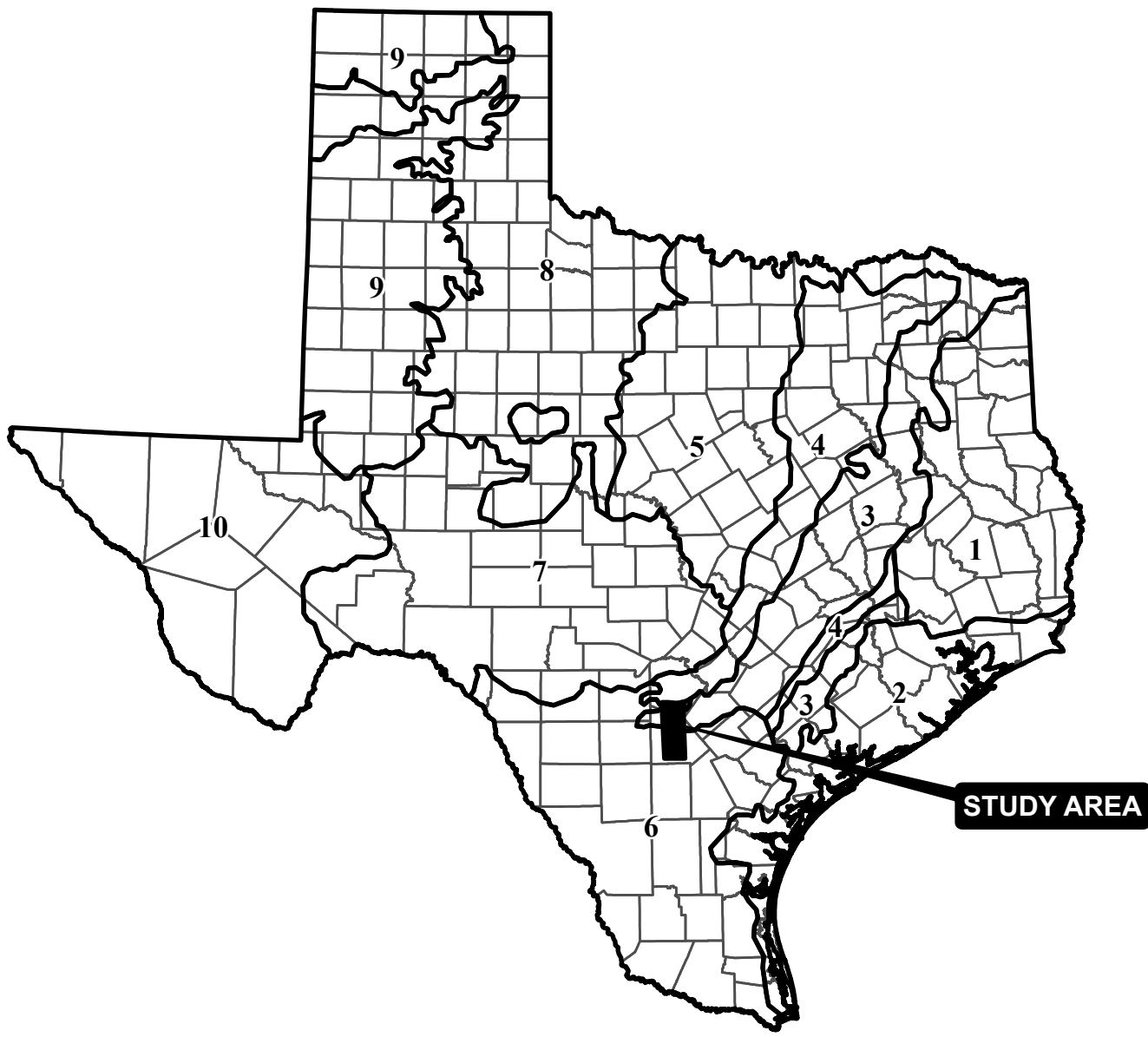
As shown in Figure 3-2, the study area is located within the Post Oak Savannah, Blackland Prairie, and South Texas Plains vegetational areas (Gould et al. 1960). The study area is located within the USEPA Southern Texas Plains, Texas Blackland Prairies, and East Central Texas Plains Level III Ecoregions and within the Texas-Tamaulipan Thornscrub, Northern Blackland Prairie, and Southern Post Oak Savanna Level IV Ecoregions (Griffith et al. 2007). A general description of the of the ecoregions within the study area are included below. The plant species in the vegetation communities of the ecoregions are dependent on location, hydrology, soils, and disturbance history or land management activities.

Southern Texas Plains Level III Ecoregion

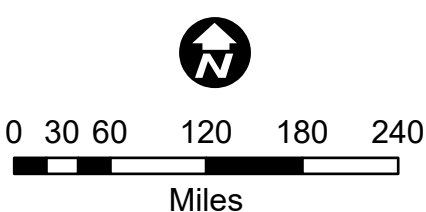
Rolling to moderately dissected plains that were once covered with grassland and savanna vegetation. Through continued grazing and fire suppression, thorny scrub such as mesquite is prominent. The subhumid to dry region contains a diverse mosaic of clay, clay loam, and sandy clay loam soils (Griffith et al. 2007).

Texas Blackland Prairies Level III Ecoregion



Forms a disjunct ecological region, distinguishes from surrounding regions by fine-textured, clayey soils and predominantly prairie potential natural vegetation. Dominant grasses include little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*). This region now contains more cropland than adjacent regions and land uses for pasture and forage production for livestock is common (Griffith et al. 2007).



STUDY AREA



Source: Gould, et. al., 1960.

- Legend**
-  Vegetational Areas Boundary
 - 1 Pinewoods
 - 2 Gulf Prairies and Marshes
 - 3 Post Oak Savannah
 - 4 Blackland Prairies
 - 5 Cross Timbers and Prairies
 - 6 South Texas Plains
 - 7 Edwards Plateau
 - 8 Rolling Plains
 - 9 High Plains
 - 10 Trans-Pecos
 -  County Boundary

**HOWARD ROAD TO SAN MIGUEL
345-KV TRANSMISSION LINE
PROJECT
FIGURE 3-2**

LOCATION OF THE STUDY AREA
IN RELATION TO THE
VEGETATIONAL
AREAS OF TEXAS



East Central Texas Plains Level III Ecoregion

The boundary of this ecological region is a subtle transition of soils and vegetation from its adjacent regions. Soils are variable among parallel ridges and valleys and tend to be acidic with sands and sandy loams in upland areas and clay to clay loams in low-lying areas. Many areas have a dense underlying clay pan affecting water movement and available moisture for plant growth. The bulk of this region's land use includes pasture and rangelands (Griffith et al. 2007).

Texas-Tamaulipan Thornscrub Level IV Ecoregion

Composed of mostly gently rolling or irregular plains dissected by arroyos and streams with low-growing vegetation. The vegetation is dominated by drought-tolerant, mostly small-leaved, and often thorn-laden small trees and shrubs (Griffith et al. 2007). Common woody species include honey mesquite, brasil (*Condalia hookeri*), colima (*Zanthoxylum fagara*), Texas persimmon (*Diospyros texana*), lotebush, granjeno (*Celtis pallida*), blackbrush (*Acacia rigidula*), and guajillo (*Acacia berlandieri*). Short grasses include silver bluestem (*Bothriochloa laguroides*), pink pappusgrass (*Pappophorum bicolor*), and red grama (*Bouteloua trifida*).

Northern Blackland Prairie Level IV Ecoregion

Rolling to nearly level plains that generally coincide with a belt of Upper Cretaceous chalks, marls, limestones, and shales. Soils are mostly fine-textured, dark, calcareous, and productive. Common woody species include riparian forests of bur oak, Shumard oak (*Quercus shumardii*), sugar hackberry, elm (*Ulmus* spp.), ash (*Fraxinus* spp.), eastern cottonwood (*Populus deltoides*) and pecan (*Carya illinoensis*). Common grasses drastically differ than the region's historical tallgrass prairie species and now typically include eastern gamagrass (*Tripsacum dactyloides*) and switchgrass (Griffith et al. 2007).

Southern Post Oak Savanna Level IV Ecoregion

Has more woods and forest than adjacent prairie ecoregions and consists of mostly hardwoods. Soils are generally acidic and have sand and sandy loam soil textures. Some clay to clay loams occur on lower areas, and a dense clay pan is usually underlying all soil types. Current land cover includes mixed post oak (*Quercus stellata*) woods, improved pasture, and rangeland with some invasive mesquite to the south of the region (Griffith et al. 2007). Common tree species include post oak, blackjack oak (*Quercus merilandica*), black hickory (*Carya texana*), and grasses of little bluestem, purpletop tridens (*Tridens flavus*), curly threeawn (*Aristida desmantha*), and yellow Indiangrass. The understory is typically composed of yaupon (*Ilex vomitoria*), eastern redcedar (*Juniperus virginiana*), winged elm (*Ulmus alata*), American beautyberry (*Callicarpa americana*), and farkleberry (*Vaccinium arboretum*).

Ecological Systems

Review of the TPWD (2023c) Texas Ecosystem Analytical Mapper indicates that dominant vegetation types (vegetation types comprising one percent or more of the study area) mapped within the study area include:

- Barren
- Blackland Prairie: Disturbance or Tame Grassland
- Central Texas: Floodplain Hardwood Forest
- Edwards Plateau: Floodplain Hardwood Forest
- Native Invasive: Deciduous Woodland
- Native Noninvasive: Mesquite Shrubland
- Post Oak Savanna: Live Oak Motte and Woodland
- Post Oak Savanna: Post Oak Motte and Woodland
- Post Oak Savanna: Savanna Grassland
- Row Crops
- South Texas: Clayey Blackbrush Mixed Shrubland
- South Texas: Clayey Mesquite Mixed Shrubland
- South Texas: Disturbance Grassland
- South Texas: Floodplain Grassland
- South Texas: Floodplain Hardwood Forest and Woodland
- South Texas: Ramadero Shrubland
- South Texas: Ramadero Woodland
- South Texas: Salty Thornscrub
- South Texas: Sandy Mesquite Dense Shrubland
- South Texas: Sandy Mesquite Savanna Grassland
- South Texas: Sandy Mesquite Woodland and Shrubland
- Urban High Intensity
- Urban Low Intensity

A short description and a list of common species found in each dominant vegetation type can be found below.

Barren

Areas that have little-to-no vegetational cover (TPWD 2023c).

Blackland Prairie: Disturbance or Tame Grassland

Dominated by bermudagrass (*Cynodon dactylon*), kleingrass (*Panicum coloratum*), King Ranch bluestem (*Bothriochloa ischaemum* var. *songarica*), Johnsongrass (*Sorghum halepense*), western ragweed (*Ambrosia psilostachya*), and common broomweed (*Amphiachyris dracunculoides*) (TPWD 2023c).

Central Texas: Floodplain Hardwood Forest

Common deciduous overstory trees include pecan, white ash (*Fraxinus americana*), green ash (*Fraxinus pennsylvanica*), water oak, cedar elm, American elm, sugar hackberry, sweetgum, and willows (*Salix* spp.) (TPWD 2023c).

Edwards Plateau: Floodplain Hardwood Forest

This broadly-circumscribed mainly deciduous forest includes cedar elm, sugar hackberry, American elm, pecan, plateau live oak (*Quercus fusiformis*), bur oak, western soapberry, Arizona walnut (*Juglans major*), and green ash. Understory species may include mesquite, gum bumelia (*Sideroxylon lanuginosum*), roughleaf dogwood (*Cornus drummondii*), red mulberry (*Morus rubra*), Texas persimmon, and possumhaw (TPWD 2023c).

Native Invasive: Deciduous Woodland

This broadly-defined vegetation type is mapped on prairie soils from the Blacklands Prairie region westward. These areas are typically heavily grazed, plowed, or fire suppressed. Common species may include mesquite, sugar hackberry or netleaf hackberry (*Celtis reticulata*), cedar elm, and junipers (*Juniperus* spp.) (TPWD 2023c).

Native Noninvasive: Mesquite Shrubland

Mesquite is typically dominant in these areas and is mapped on former prairie or savanna soils. Codominants can vary but lotebush, juniper, sugar hackberry or netleaf hackberry, pricklypear cactus (*Opuntia* spp.), and agarito (*Berberis trifoliolata*) are common (TPWD 2023c).

Post Oak Savanna: Live Oak Motte and Woodland

Plateau live oak or coastal live oak (*Quercus agrifolia*) are important in this vegetation type. Common components include eastern redcedar and loblolly pine (*Pinus taeda*). Post oak, cedar elm, and/or water oak are often in the canopy. Common understory species include yaupon, American beautyberry, and gum bumelia (TPWD 2023c).

Post Oak Savanna: Post Oak Motte and Woodland

Post oak is the most frequent dominant tree in this vegetation type. Cedar elm, blackjack oak, sugar hackberry, water oak, southern red oak (*Quercus falcata*), black hickory, and plateau live oak are typically present in the

overstory. Mesquite, yaupon, common persimmon (*Diospyros virginiana*), possumhaw, winged elm, gum bumelia, American beautyberry, and eastern redcedar are common shrub species (TPWD 2023c).

Post Oak Savanna: Savanna Grassland

Disturbance or tame grasses such as bermudagrass, King Ranch bluestem, kleingrass, and bahiagrass (*Paspalum notatum*) are common dominant species. Little bluestem, Indiangrass (*Sorghastrum nutans*), silver bluestem, Texas wintergrass (*Nassella leucotricha*), tall dropseed (*Sporobolus compositus*), and brownseed paspalum (*Paspalum plicatulum*) are key native species. Common weedy herbaceous species include common broomweed, western ragweed, and hog croton (*Croton capitatus*). Post oak, mesquite, eastern redcedar, blackjack oak, water oak, and yaupon are common woody species that may form sparse woodlands or shrublands (TPWD 2023c).

Row Crops

Includes all cropland where fields are fallow for some portion of the year (TPWD 2023c).

South Texas: Clayey Blackbrush Mixed Shrubland

Relatively dense, tall, and diverse shrublands with species such as blackbrush, mesquite, granjeno, guajillo, guayacan (*Guaiacum angustifolium*), whitebrush (*Aloysia gratissima*), lotebush, amargosa (*Castela texana*), brasil, and/or colima (TPWD 2023c).

South Texas: Clayey Mesquite Mixed Shrubland

A discontinuous canopy of shrubs and small trees with clayey and loamy soils. Species such as mesquite, huisache (*Acacia smallii*), sugar hackberry, granjeno, guajillo, blackbrush, lotebush, pricklypear cactus, and whitebrush are common. Buffelgrass (*Pennisetum ciliare*) is a common herbaceous dominant (TPWD 2023c).

South Texas: Disturbance Grassland

A variety of mainly heavily grazed grasslands are common in this vegetation type. Grasses and shrubs both are important components and include buffelgrass, bermudagrass, King Ranch bluestem, Kleberg bluestem (*Dichanthium annulatum*), guineagrass (*Megathyrsus maximus*), pink pappusgrass, threeawn (*Aristida* spp.), red grama, mesquite, huisache, blackbrush, lotebush, huisachillo (*Acacia schafferni*), and granjeno (TPWD 2023c).

South Texas: Floodplain Grassland

Common dominant species include buffelgrass, bermudagrass, Kleberg bluestem, King Ranch bluestem, Gulf cordgrass (*Spartina spartinae*), guineagrass, and rabbitsfoot grass (*Polypogon monspeliensis*). Shrubs and small trees may include mesquite, huisache, retama (*Parkinsonia aculeata*), blackbrush, lotebush, whitebrush, granjeno, and common buttonbush (TPWD 2023c).

South Texas: Floodplain Hardwood Forest and Woodland

Dominant trees include sugar hackberry, mesquite, cedar elm, Mexican ash (*Fraxinus berlandieriana*) and black willow. Dominant shrubs and small trees include mesquite, huisache, Texas persimmon, brasil, granjeno, and colima (TPWD 2023c).

South Texas: Ramadero Shrubland

This vegetation type is found in narrow bands along upland drainages. Common shrubs and small trees include mesquite, huisache, sugar hackberry, blackbrush, granjeno, Texas Persimmon, colima, brasil, palo verde (*Parkinsonia texana*), whitebrush, Texas pricklypear (*Opuntia engelmannii* var. *lindheimeri*), and lotebush (TPWD 2023c).

South Texas: Ramadero Woodland

This vegetation type is found in narrow bands along upland drainages. Common small trees include mesquite, huisache, granjeno, sugar hackberry, and retama. Common shrubs include granjeno whitebrush, Texas persimmon, colima, brasil, desert olive (*Forestiera pubescens* var. *neomexicana*), and lotebush (TPWD 2023c).

South Texas: Salty Thornscrub

This vegetation type may be over more or less salty soils, and often contains mesquite as the overstory dominant except on the saltiest sites. A variety of shrubs and succulents may be present, including blackbrush, amargosa, lotebush, palo verde, leatherstem (*Jatropha dioica*), guayacan, granjeno, tornillo (*Prosopis reptans*), Drummond's goldenweed (*Isocoma drummondii*), Texas pricklypear, tasajillo (*Cylindropuntia leptocaulis*), four-wing saltbush (*Atriplex canescens*), and saladillo (*Varilla texana*). Buffelgrass, red grama, Kleberg bluestem, curlymesquite (*Hilaria belangeri*), and whorled dropseed (*Sporobolus pyramidatus*) are common grasses (TPWD 2023c).

South Texas: Sandy Mesquite Dense Shrubland

Dense mesquite shrubland with relatively diverse additional shrubs and small trees such as Texas ebony (*Ebenopsis ebano*), colima, blackbrush, Texas persimmon, huisache, guajillo, snake-eyes (*Phaulothamnus spinescens*), coyotillo (*Karwinskia humboldtiana*), and brasil (TPWD 2023c).

South Texas: Sandy Mesquite Savanna Grassland

Grasslands with scattered mesquite over loamy sands and loams. Herbaceous species such as King Ranch bluestem, buffelgrass, Kleberg bluestem, bermudagrass, little bluestem, purple threeawn (*Aristida purpurea*), silver bluestem, tanglehead (*Heteropogon contortus*), and hog croton are common. Common shrubs include mesquite, granjeno, blackbrush, huisache, colima, Texas hogplum (*Colubrina texensis*), whitebrush, brasil, and Texas persimmon (TPWD 2023c).

South Texas: Sandy Mesquite Woodland and Shrubland

Relatively dense mesquite low woodlands (TPWD 2023c). Shrublands are typically dominated by granjeno, blackbrush, Texas hogplum, brasil, colima, huisache, Texas persimmon, and whitebrush. Overstory canopy is often sparse and contains mesquite, huisache, Texas ebony, and plateau live oak.

Urban High Intensity

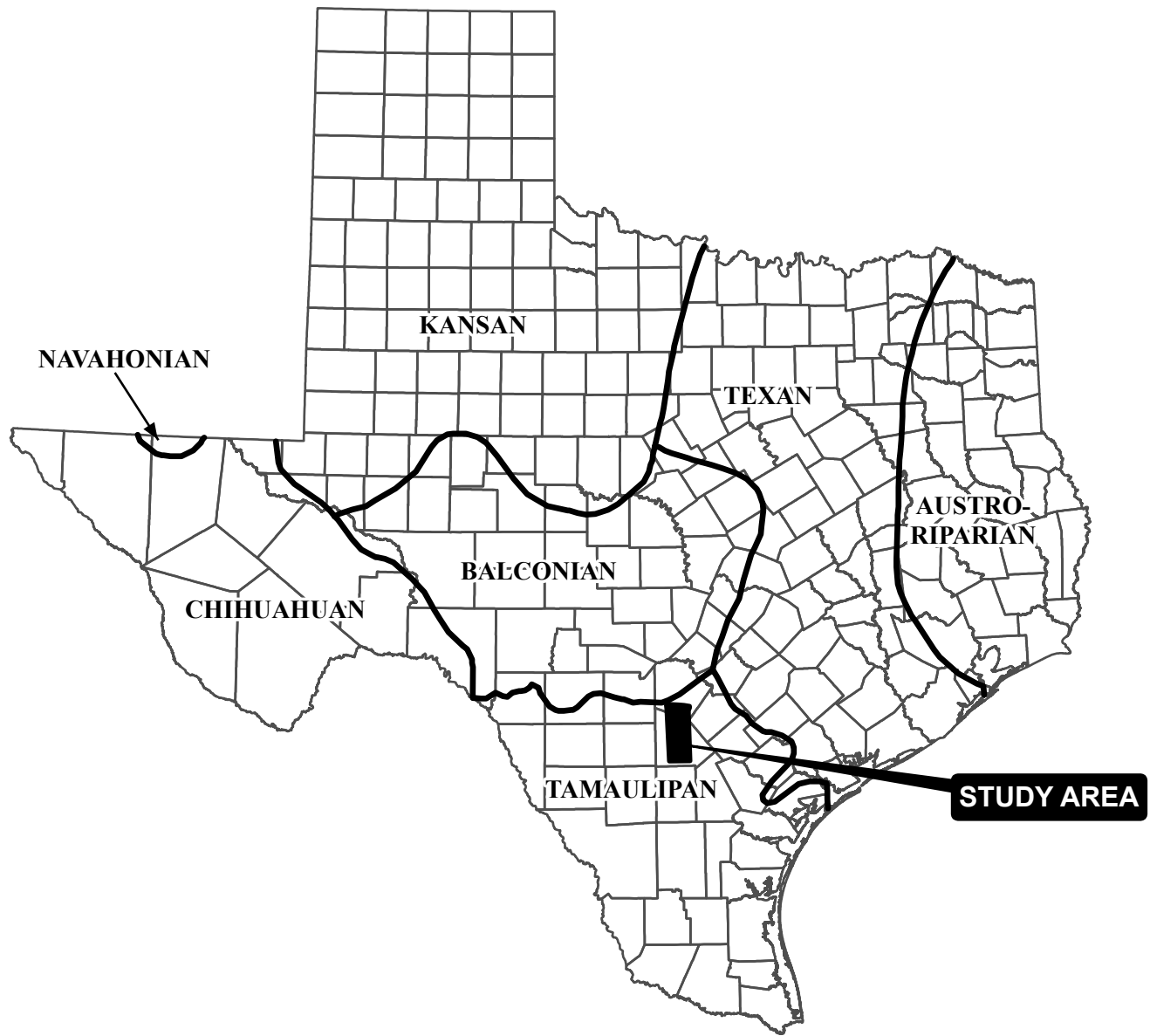
Areas that are built-up with wide transportation corridors that are dominated by impervious cover (TPWD 2023c).

Urban Low Intensity

Areas that are built-up but not entirely covered by impervious cover (TPWD 2023c).

3.1.9 Wildlife

The study area occurs within the Balconian and Tamaulipan Biotic Provinces (see Figure 3-3) as described by Blair (Blair 1950). The Balconian province includes the Edwards Plateau, the Lampasas Cut Plain, and the Central Mineral Region. This is a region of intermediate ecological conditions between the eastern forests and western deserts. Faunal composition is characterized as an intermixed representation of Austroriparian, Tamaulipan, Chihuahuan, and Kansan province species. The Tamaulipan province includes the Gulf coastal plain south of the Balcones Escarpment and west of the boundary between pedalfer and pedocal soils. This province is characterized by an intermixture of Neotropical species, Austroriparian species, and southwest desert species (Blair 1950) The following sections list species that may occur in and represent the faunal diversity of the study area today.





0 30 60 120 180 240



Miles

Source: Blair, 1950, modified

Legend

-  Biotic Province Boundary
-  County Boundary

**HOWARD ROAD TO SAN MIGUEL
345-KV TRANSMISSION LINE
PROJECT**

FIGURE 3-3

LOCATION OF THE STUDY AREA
IN RELATION TO THE
BIOTIC PROVINCES
OF TEXAS



Amphibians

A representative list of amphibian species (frogs, toads, and salamanders) that may occur within the study area are listed in Table 3-2. The likelihood for occurrence of each species within the study areas will depend upon suitable habitat. Frogs and toads may occur in all vegetation types, while salamanders are typically restricted to hydric habitats (Dixon 2013).

TABLE 3-2 AMPHIBIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²
Frogs/Toads	
American bullfrog	<i>Lithobates catesbeianus</i>
Barking frog	<i>Eleutherodactylus augusti</i>
Blanchard's cricket frog	<i>Acris blanchardi</i>
Cliff chirping frog	<i>Eleutherodactylus marnokii</i>
Cope's gray treefrog	<i>Hyla chrysoscelis</i>
Couch's spadefoot	<i>Scaphiopus couchi</i>
Eastern green toad	<i>Anaxyrus debilis</i>
Gray treefrog	<i>Hyla versicolor</i>
Green treefrog	<i>Hyla cinerea</i>
Gulf Coast toad	<i>Incilius nebulifer</i>
Hurter's spadefoot	<i>Scaphiopus hurterii</i>
Red-spotted toad	<i>Anaxyrus punctatus</i>
Rio Grande chirping frog	<i>Eleutherodactylus cystignathoides</i>
Rio Grande leopard frog	<i>Lithobates berlandieri</i>
Rocky Mountain toad	<i>Anaxyrus woodhousii</i>
Southern leopard frog	<i>Lithobates sphenoccephala</i>
Spotted chorus frog	<i>Pseudacris clarkii</i>
Strecker's chorus frog	<i>Pseudacris streckeri</i>
Texas toad	<i>Anaxyrus speciosus</i>
Western narrow-mouthed toad	<i>Gastrophryne olivacea</i>
Salamanders	
Black-spotted newt	<i>Notophthalmus meridionalis</i>
Comal blind salamander	<i>Eurycea tridentifera</i>
Small-mouthed salamander	<i>Ambystoma texanum</i>
Tiger salamander	<i>Ambystoma tigrinum</i>
Western slimy salamander	<i>Plethodon albagula</i>

¹ According to Dixon 2013.

² Nomenclature follows: Society for the Study of Amphibians and Reptiles (2017).

Reptiles

A representative list of reptiles (turtles, lizards, and snakes) that may occur in the study area are listed in Table 3-3. The likelihood for occurrence of each species within the study areas will depend upon suitable habitat. These

include those species that are more commonly observed near water (e.g., aquatic turtles) and those that are more common in terrestrial habitats (Dixon 2013).

TABLE 3-3 REPTILIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²
Turtles	
Cagle's map turtle	<i>Graptemys caglei</i>
Eastern box turtle	<i>Terrapene carolina</i>
Eastern mud turtle	<i>Kinosternon subrubrum</i>
Eastern musk turtle	<i>Sternotherus odoratus</i>
Guadalupe spiny softshell	<i>Apalone spinifera guadalupensis</i>
Ornate box turtle	<i>Terrapene ornata ornata</i>
Pond slider	<i>Trachemys scripta</i>
Snapping turtle	<i>Chelydra serpentina</i>
Texas cooter	<i>Pseudemys texana</i>
Texas tortoise	<i>Gopherus berlandieri</i>
Yellow mud turtle	<i>Kinosternon flavescens</i>
Lizards	
Brown anole	<i>Anolis sagrei</i>
Common spotted whiptail	<i>Cnemidophorus gularis</i>
Crevice spiny lizard	<i>Sceloporus poinsettii</i>
Eastern collared lizard	<i>Crotaphytus collaris collaris</i>
Eastern six-lined racerunner	<i>Cnemidophorus sexlineata sexlineata</i>
Great Plains skink	<i>Plestiodon obsoletus</i>
Green anole	<i>Anolis carolinensis</i>
Keeled earless lizard	<i>Holbrookia propinqua</i>
Little brown skink	<i>Scincella lateralis</i>
Mediterranean gecko	<i>Hemidactylus turcicus</i>
Prairie lizard	<i>Sceloporus consobrinus</i>
Prairie skink	<i>Plestiodon septentrionalis</i>
Rose-bellied lizard	<i>Sceloporus variabilis</i>
Short-lined skink	<i>Plestiodon tetragrammus brevilineatus</i>
Slender glass lizard	<i>Ophisaurus attenuatus</i>
Southern spot-tailed earless lizard	<i>Holbrookia lacerata subcaudalis</i>
Texas alligator lizard	<i>Gerrhonotus infernalis</i>
Texas banded gecko	<i>Coleonyx brevis</i>
Texas greater earless lizard	<i>Cophosarus texanus texanus</i>
Texas horned lizard	<i>Phrynosoma cornutum</i>
Texas spiny lizard	<i>Sceloporus olivaceus</i>
Texas tree lizard	<i>Urosaurus ornatus ornatus</i>
Snakes	
Black-tailed rattlesnake	<i>Crotalus molossus</i>
Broad-banded copperhead	<i>Agkistrodon contortrix laticinctus</i>

TABLE 3-3 REPTILIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²
Bullsnake	<i>Pituophis catenifer sayi</i>
Central American indigo snake	<i>Drymarchon melanurus</i>
Checkered garter snake	<i>Thamnophis marcianus</i>
Chihuahuan night snake	<i>Hypsiglena jani</i>
Cottonmouth	<i>Agkistrodon piscivorus</i>
Desert kingsnake	<i>Lampropeltis getula splendida</i>
Diamond-backed watersnake	<i>Nerodia rhombifer</i>
Eastern black-necked garter snake	<i>Thamnophis cyrtopsis ocellatus</i>
Eastern hog-nosed snake	<i>Heterodon platirhinos</i>
Eastern rat snake	<i>Pantherophis obsoletus</i>
Eastern yellow-bellied racer	<i>Coluber constrictor flaviventris</i>
Flat-headed snake	<i>Tantilla gracilis</i>
Graham's crayfish snake	<i>Regina grahamii</i>
Long-nosed snake	<i>Rhinocheilus lecontei</i>
Mexican milksnake	<i>Lampropeltis triangulum annulate</i>
Plain-bellied watersnake	<i>Nerodia erythrogaster</i>
Plains black-headed snake	<i>Tantilla nigriceps</i>
Plains hog-nosed snake	<i>Heterodon nasicus</i>
Prairie kingsnake	<i>Lampropeltis calligaster</i>
Prairie ring-necked snake	<i>Diadophis punctatus amyi</i>
Rough earthsnake	<i>Virginia striatula</i>
Rough green snake	<i>Opheodrys aestivus</i>
Schott's whipsnake	<i>Masticophis schotti</i>
Smooth earthsnake	<i>Virginia valeriae</i>
Southwestern rat snake	<i>Pantherophis emoryi meahllorum</i>
Striped whipsnake	<i>Masticophis taeniatus</i>
Texas brown snake	<i>Storeria dekayi texana</i>
Texas coral snake	<i>Micrurus tener</i>
Texas garter snake	<i>Thamnophis sirtalis annectens</i>
Texas glossy snake	<i>Arizona elegans Arenicola</i>
Texas lined snake	<i>Tropidoclonion lineatum texanum</i>
Texas patch-nosed snake	<i>Salvadora grahamiae lineata</i>
Texas thread snake	<i>Rena dulcis</i>
Timber rattlesnake	<i>Crotalus horridus</i>
Western coachwhip	<i>Masticophis flagellum</i>
Western diamond-backed rattlesnake	<i>Crotalus atrox</i>
Western ground snake	<i>Sonora semiannulata</i>
Western ribbon snake	<i>Thamnophis Proximus</i>

¹ According to Dixon 2013.² Nomenclature follows: Society for the Study of Amphibians and Reptiles (2017)

Birds

A representative list of numerous avian species may occur within the study area as year-round residents, summer residents, and/or winter residents/migrants as presented in Table 3-4. Texas Ornithological Society (Lockwood and Freeman 2014) data and TPWD ecoregion specific avian check lists (Lockwood 2008) were reviewed for species distribution and life history information. Avian species potentially occurring within the study area include year-round residents and summer, and/or winter migrants as shown in Table 3-4. Additional transient bird species may migrate within or through the study area in the spring and fall and/or use the area to nest (spring/summer) or overwinter. The likelihood for the occurrence of each species depends upon availability of suitable habitat and season. Migratory bird species that are native to the United States or its territories are protected under the MBTA.

TABLE 3-4 AVIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²	RESIDENT ¹	SUMMER ¹	WINTER ¹
Accipitriformes: Accipitridae				
Cooper's hawk	<i>Accipiter cooperii</i>		X	X
Northern harrier	<i>Circus cyaneus</i>			X
Red-shouldered hawk	<i>Buteo lineatus</i>	X		
Red-tailed hawk	<i>Buteo jamaicensis</i>	X		
Sharp-shinned hawk	<i>Accipiter striatus</i>			X
Swainson's hawk	<i>Buteo swainsoni</i>		X	X
Zone-tailed hawk	<i>Buteo albonotatus</i>		X	
Accipitriformes: Cathartidae				
Black vulture	<i>Coragyps atratus</i>	X		
Turkey vulture	<i>Cathartes aura</i>	X		
Apodiformes: Apodidae				
Chimney Swift	<i>Chaetura pelagica</i>		X	
Apodiformes: Trochilidae				
Black-chinned hummingbird	<i>Archilochus alexandri</i>		X	
Buff-bellied hummingbird	<i>Amazilia yucatanensis</i>		X	
Ruby-throated hummingbird	<i>Archilochus colubris</i>		X	
Rufous hummingbird	<i>Selasphorus rufus</i>			X
Caprimulgiformes: Caprimulgidae				
Common nighthawk	<i>Chordeiles minor</i>		X	
Common poorwill	<i>Phalaenoptilus nuttallii</i>		X	
Charadriiformes: Charadriidae				
Killdeer	<i>Charadrius vociferus</i>	X		
Columbiformes: Columbidae				
Eurasian collared-dove	<i>Streptopelia decaocto</i>	X		
Inca dove	<i>Columbina inca</i>	X		
Mourning dove	<i>Zenaidura macroura</i>	X		
Rock pigeon	<i>Columba livia</i>	X		
White-winged dove	<i>Zenaidura asiatica</i>	X		
Coraciiformes: Alcedinidae				
Belted kingfisher	<i>Megasceryle alcyon</i>			X
Green kingfisher	<i>Chloroceryle americana</i>	X		
Cuculiformes: Cuculidae				

TABLE 3-4 AVIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²	RESIDENT ¹	SUMMER ¹	WINTER ¹
Greater roadrunner	<i>Geococcyx californianus</i>	X		
Yellow-billed cuckoo	<i>Coccyzus americanus</i>		X	
Falconiformes: Falconidae				
American kestrel	<i>Falco sparverius</i>			X
Crested caracara	<i>Caracara cheriway</i>	X		
Passeriformes: Bombycillidae				
Cedar waxwing	<i>Bombycilla cedrorum</i>			X
Passeriformes: Cardinalidae				
Blue grosbeak	<i>Passerina caerulea</i>		X	
Dickcissel	<i>Spiza americana</i>		X	
Indigo bunting	<i>Passerina cyanea</i>		X	
Northern cardinal	<i>Cardinalis cardinalis</i>	X		
Painted bunting	<i>Passerina ciris</i>		X	
Summer tanager	<i>Piranga rubra</i>		X	
Passeriformes: Corvidae				
American crow	<i>Corvus brachyrhynchos</i>			X
Blue jay	<i>Cyanocitta cristata</i>	X		
Common raven	<i>Corvus corax</i>	X		
Passeriformes: Emberizidae				
Cassin's sparrow	<i>Peucaea cassinii</i>	X		
Chipping sparrow	<i>Spizella passerina</i>	X		
Clay-colored sparrow	<i>Spizella pallida</i>			X
Dark-eyed junco	<i>Junco hyemalis</i>			X
Eastern towhee	<i>Pipilo erythrophthalmus</i>			X
Field sparrow	<i>Spizella pusilla</i>	X		
Grasshopper sparrow	<i>Ammodramus savannarum</i>		X	
Harris's sparrow	<i>Zonotrichia querula</i>			X
Lark bunting	<i>Calamospiza melanocorys</i>			X
Lark sparrow	<i>Chondestes grammacus</i>		X	
Lincoln's sparrow	<i>Melospiza lincolni</i>			X
Savannah sparrow	<i>Passerculus sandwichensis</i>			X
Song sparrow	<i>Melospiza melodia</i>	X		X
Spotted towhee	<i>Pipilo maculatus</i>			X
Vesper sparrow	<i>Pooecetes gramineus</i>			X
White-crowned sparrow	<i>Zonotrichia leucophrys</i>			X
White-throated sparrow	<i>Zonotrichia albicollis</i>			X
Passeriformes: Fringillidae				
American goldfinch	<i>Spinus tristis</i>			X
House finch	<i>Haemorhous mexicanus</i>	X		
Lesser goldfinch	<i>Spinus psaltria</i>		X	
Pine siskin	<i>Spinus pinus</i>			X
Passeriformes: Hirundinidae				
Bank swallow	<i>Riparia riparia</i>			X
Barn swallow	<i>Hirundo rustica</i>		X	
Cave swallow	<i>Petrochelidon fulva</i>		X	
Cliff swallow	<i>Petrochelidon pyrrhonota</i>		X	
Purple martin	<i>Progne subis</i>		X	

TABLE 3-4 AVIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²	RESIDENT ¹	SUMMER ¹	WINTER ¹
Tree swallow	<i>Tachycineta bicolor</i>		X	
Passeriformes: Icteridae				
Baltimore oriole	<i>Icterus galbula</i>		X	X
Brown-headed cowbird	<i>Molothrus ater</i>	X		
Bullock's oriole	<i>Icterus bullockii</i>		X	
Common grackle	<i>Quiscalus quiscula</i>	X		
Eastern meadowlark	<i>Sturnella magna</i>	X		
Great-tailed grackle	<i>Quiscalus mexicanus</i>	X		
Orchard oriole	<i>Icterus spurius</i>		X	
Red-winged blackbird	<i>Agelaius phoeniceus</i>	X		
Passeriformes: Laniidae				
Loggerhead shrike	<i>Lanius ludovicianus</i>	X		X
Passeriformes: Mimidae				
Gray catbird	<i>Dumetella carolinensis</i>			X
Long-billed thrasher	<i>Toxostoma longirostre</i>	X		
Northern mockingbird	<i>Mimus polyglottos</i>	X		
Passeriformes: Motacillidae				
American pipit	<i>Anthus rubescens</i>			X
Passeriformes: Paridae				
Black-crested titmouse	<i>Baeolophus atricristatus</i>	X		
Carolina chickadee	<i>Poecile carolinensis</i>	X		
Passeriformes: Parulidae				
Black-and-white warbler	<i>Mniotilta varia</i>		X	
Black-throated green warbler	<i>Setophaga virens</i>		X	
Canada warbler	<i>Cardellina canadensis</i>			X
Common yellowthroat	<i>Geothlypis trichas</i>			X
Hooded warbler	<i>Setophaga citrina</i>		X	
Magnolia warbler	<i>Setophaga magnolia</i>			X
Mourning warbler	<i>Geothlypis philadelphia</i>			X
Northern parula	<i>Setophaga americana</i>		X	
Orange-crowned warbler	<i>Oreothlypis celata</i>			X
Pine warbler	<i>Setophaga pinus</i>			X
Tennessee warbler	<i>Oreothlypis peregrina</i>			X
Wilson's warbler	<i>Cardellina pusilla</i>			X
Yellow warbler	<i>Setophaga petechia</i>			X
Yellow-rumped warbler	<i>Setophaga coronata</i>			X
Passeriformes: Passeridae				
House sparrow	<i>Passer domesticus</i>	X		
Passeriformes: Polioptilidae				
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>		X	
Passeriformes: Regulidae				
Golden-crowned kinglet	<i>Regulus satropa</i>			X
Ruby-crowned kinglet	<i>Regulus calendula</i>			X
Passeriformes: Remizidae				
Verdin	<i>Auriparus flaviceps</i>	X		
PASSERIFORMES: Sturnidae				
European starling	<i>Sturnus vulgaris</i>	X		

TABLE 3-4 AVIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²	RESIDENT ¹	SUMMER ¹	WINTER ¹
Passeriformes: Troglodytidae				
Bewick's wren	<i>Thryomanes bewickii</i>	X		
Cactus wren	<i>Campylorhynchus brunneicapillus</i>	X		
Carolina wren	<i>Thryothorus ludovicianus</i>	X		
House wren	<i>Troglodytes aedon</i>			X
Winter wren	<i>Troglodytes hiemalis</i>			X
Passeriformes: Turdidae				
American robin	<i>Turdus migratorius</i>		X	
Eastern bluebird	<i>Sialia sialis</i>	X		
Swainson's thrush	<i>Catharus ustulatus</i>		X	
Passeriformes: Tyrannidae				
Brown-crested flycatcher	<i>Myiarchus tyrannulus</i>		X	
Eastern phoebe	<i>Sayornis phoebe</i>		X	
Eastern wood-pewee	<i>Contopus virens</i>		X	
Great crested flycatcher	<i>Myiarchus crinitus</i>		X	
Least flycatcher	<i>Empidonax minimus</i>		X	
Say's phoebe	<i>Sayornis saya</i>			X
Scissor-tailed flycatcher	<i>Tyrannus forficatus</i>		X	
Vermilion flycatcher	<i>Pyrocephalus rubinus</i>		X	
Western kingbird	<i>Tyrannus verticalis</i>		X	
Passeriformes: Vireonidae				
Bell's vireo	<i>Vireo bellii</i>		X	
Blue-headed vireo	<i>Vireo solitarius</i>			X
Hutton's vireo	<i>Vireo huttoni</i>		X	X
Warbling vireo	<i>Vireo gilvus</i>		X	
White-eyed vireo	<i>Vireo griseus</i>		X	
Yellow-throated vireo	<i>Vireo flavifrons</i>		X	
Pelecaniformes: Ardeidae				
Great blue heron	<i>Ardea herodias</i>	X		
Great egret	<i>Ardea alba</i>		X	
Piciformes: Picidae				
Downy woodpecker	<i>Picoides pubescens</i>			X
Golden-fronted woodpecker	<i>Melanerpes aurifrons</i>	X		
Ladder-backed woodpecker	<i>Picoides scalaris</i>	X		
Northern flicker	<i>Colaptes auratus</i>			X
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>			X
Strigiformes: Strigidae				
Barn owl	<i>Tyto alba</i>	X		
Barred owl	<i>Strix varia</i>	X		
Great horned owl	<i>Bubo virginianus</i>	X		

¹ According to Lockwood and Freeman (2014).² Nomenclature follows: Lockwood and Freeman (2014).

Mammals

A representative list of mammals that may occur in the study area are listed in Table 3-5 (Schmidly and Bradley 2016). The likelihood for occurrence of each species within the study areas will depend upon suitable habitat.

TABLE 3-5 MAMMALIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME²	SCIENTIFIC NAME²
Mammals	
American badger	<i>Taxidea taxus</i>
American beaver	<i>Castor canadensis</i>
American perimyotis	<i>Perimyotis subflavus</i>
Attwater's pocket gopher	<i>Geomys attwateri</i>
Big brown bat	<i>Eptesicus fuscus</i>
Big free-tailed bat	<i>Nyctinomops macrotis</i>
Black rat	<i>Rattus rattus</i>
Black-tailed jackrabbit	<i>Lepus californicus</i>
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>
Bobcat	<i>Lynx rufus</i>
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>
Cave myotis	<i>Myotis velifer</i>
Collared peccary	<i>Pecari tajacu</i>
Common gray fox	<i>Urocyon cinereoargenteus</i>
Common raccoon	<i>Procyon lotor</i>
Coyote	<i>Canis latrans</i>
Crawford's desert shrew	<i>Notiosorex crawfordi</i>
Eastern cottontail	<i>Sylvilagus floridanus</i>
Eastern fox squirrel	<i>Sciurus niger</i>
Eastern gray squirrel	<i>Sciurus carolinensis</i>
Eastern mole	<i>Scalopus aquaticus</i>
Eastern red bat	<i>Lasiurus borealis</i>
Eastern spotted skunk	<i>Spilogale putorius</i>
Eastern woodrat	<i>Neotoma floridana</i>
Feral pig	<i>Sus scrofa</i>
Fulvous harvest mouse	<i>Reithrodontomys fulvescens</i>
Ghost-faced bat	<i>Mormoops megalophylla</i>
Gulf Coast kangaroo rat	<i>Dipodomys compactus</i>
Hispid cotton rat	<i>Sigmodon hispidus</i>
Hispid pocket mouse	<i>Chaetodipus hispidus</i>
Hoary bat	<i>Aeorestes cinereus</i>
Hog-nosed skunk	<i>Conepatus leuconotus</i>
House mouse	<i>Mus musculus</i>
Lacey's white-ankled deermouse	<i>Peromyscus laceianus</i>
Least shrew	<i>Cryptotis parva</i>
Long-tailed weasel	<i>Mustela frenata</i>
Merriam's pocket mouse	<i>Perognathus merriami</i>
Mountain lion	<i>Puma concolor</i>
Nine-banded armadillo	<i>Dasyus novemcinctus</i>

TABLE 3-5 MAMMALIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

COMMON NAME ²	SCIENTIFIC NAME ²
North American deermouse	<i>Peromyscus maniculatus</i>
Northern pygmy mouse	<i>Baiomys taylori</i>
Northern yellow bat	<i>Dasypterus intermedius</i>
Norway rat	<i>Rattus norvegicus</i>
Nutria	<i>Myocastor coypus</i>
Plains harvest mouse	<i>Reithrodontomys montanus</i>
Red fox	<i>Vulpes vulpes</i>
Red wolf	<i>Canis rufus</i>
Ringtail	<i>Bassariscus astutus</i>
Rio Grande ground squirrel	<i>Ictidomys parvidens</i>
Rock squirrel	<i>Otospermophilus variegatus</i>
Southern plains woodrat	<i>Neotoma micropus</i>
Striped skunk	<i>Mephitis mephitis</i>
Swamp rabbit	<i>Sylvilagus aquaticus</i>
Texas deermouse	<i>Peromyscus attwateri</i>
Virginia opossum	<i>Didelphis virginiana</i>
Western spotted skunk	<i>Spilogale gracilis</i>
White-footed deermouse	<i>Peromyscus leucopus</i>
White-tailed deer	<i>Odocoileus virginianus</i>
White-toothed woodrat	<i>Neotoma leucodon</i>

¹ According to Schmidly and Bradley (2016).

² Nomenclature follows: Schmidly and Bradley (2016).

Fishes and Aquatic Invertebrates

In Texas, the divisions of the biotic provinces were separated on the basis of terrestrial vertebrate distributions; however, the distribution of freshwater fishes generally corresponds with the terrestrial biotic province boundaries. Areas showing the greatest deviation from this general rule include northeast Texas and the coastal zone (Hubbs 1957). Review of the USGS (2024a) topographic maps indicates that mapped surface waters within the study area include perennial, intermittent, and ephemeral streams. Additionally, unmapped surface waters may occur within the study area.

Perennial and large ponds provide consistent aquatic habitats for all trophic levels with fish being the most prominent. The relatively stable water levels of perennial ponds facilitate stable population growth. Species adapted for deeper waters will utilize pond environments (Hubbs 1957). Potential ponds located in the study area will exhibit variability in terms of their age, drainage, use by livestock, past fish stocking, and fertilization history. Typically for pond habitat, fluctuations in water levels are experienced during summer months because of high evaporation rates and repeated heavy rainfall required to fill ponds. Periods of extended drought in the region may reduce these seasonal water level fluctuations or dry ponds completely. Intermittent and ephemeral flowing streams support aquatic species primarily adapted to ephemeral pool habitats. Because intermittent streams consist of small headwater drainages, persistent flow is unlikely to be sufficient to support any substantial lotic

species assemblage. Species in ephemeral aquatic habitats are typically adapted to rapid dispersal and completion of life cycles. In streams dominated by scoured, sandy-clay bottoms, accumulations of woody debris or leaf pack provide the most important feeding and refuge areas for invertebrates and forage fish. Softer, muddy bottoms generally harbor substantial populations of burrowing invertebrates (e.g., larval diptera and oligochaetes), which can be an important food source to higher trophic levels (Thomas et al. 2007).

3.1.10 Southern Edwards Plateau Habitat Conservation Plan

The study area is located in the Southern Edwards Plateau (SEP) Habitat Conservation Plan (HCP) area (City of San Antonio 2015). The SEP HCP was established in 2015 in coordination between USFWS, San Antonio, and Bexar County to streamline project compliance for landowners and private developers in accordance with the ESA. It created an incidental take credit bank in the form of a preserve system for nine federally listed species: golden-cheeked warbler (*Setophaga chrysoparia*), black-capped vireo (*Vireo atricapilla*), Government Canyon Bat Cave spider (*Neoleptoneta microps*), Madla Cave meshweaver (*Cicurina madla*), Braken Cave meshweaver (*Cicurina venii*), Government Canyon Bat Cave meshweaver (*Cicurina vespera*), unnamed beetle (*Rhadine exilis*), unnamed beetle (*Rhadine infernalis*), and Helotes mold beetle (*Batrisodes venyivi*). If any of the alternative routes is expected to impact any of these listed species, coordination with the SEP HCP may be necessary.

3.1.11 Threatened and Endangered Species

Information on sensitive wildlife and vegetation resources within the study area were obtained from a variety of sources, including correspondence with the USFWS and TPWD. Additional information was obtained from published literature and technical reports.

For the purpose of this EA, emphasis was placed on obtaining documented occurrences of special status species and/or their designated critical habitat within the study area. Documented occurrences of unique vegetation communities within the study area were also reviewed. Special status species include those listed by the USFWS (2023b) as threatened, endangered, or proposed for listing; and those species listed by TPWD identified by Rare, Threatened, and Endangered Species by County, Annotated County Lists (TPWD 2023d). Spatial data of known occurrences for listed species and/or sensitive vegetation communities was obtained from the TPWD's TXNDD on February 2, 2024 (TPWD 2024). The TXNDD data provides a data record, known as an element of occurrence record (EOR), of state-listed rare or threatened/endangered species and rare vegetation communities that have been documented within a given area. The TXNDD data does not preclude the potential for a species to exist within the study area. Only a species-specific survey within the study area can determine the presence or absence of a special status species.

The USFWS regulates activities affecting plants and animals designated as endangered or threatened under the ESA (16 U.S.C. § 1531 *et seq.*). A USFWS IPaC Official Species List (USFWS 2023b; Project Code: 2024-0025151) and Resource List was received on December 11, 2023. The IPaC report identifies federally listed threatened, endangered, and proposed species and designated critical habitat potentially occurring within the study area (USFWS 2023b). By federal definition, an endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as likely to become endangered within the near foreseeable future throughout all or a significant portion of its range. Proposed species are those that have been proposed in the Federal Register to be listed under the ESA. Candidate species are those that have sufficient information on their biological vulnerability and threats to support listing as threatened or endangered and are likely to be proposed for listing in the near future. The ESA also provides for the conservation of “designated critical habitat,” which is defined by the USFWS as the areas of land, water, and air space that an endangered species needs for survival. These areas include sites with food and water, breeding areas, cover or shelter sites, and sufficient habitat to provide for normal population growth and behavior for the species. The IPaC report received for the study area states that there are no designated critical habitats within the study area (USFWS 2023b).

The TPWD also regulates plants and animals designated at the state level as endangered or threatened (Chapters 67 and 68 of the TPWC and § 65.171 - 65.176 of Title 31 of the TAC; and Chapter 88 of the TPWC and § 69.01 - 69.9 of the TAC). Under Texas law, endangered animal species are those deemed to be “threatened with statewide extinction” and endangered plant species are those “in danger of extinction throughout all or a significant portion of its range.” Threatened animal and plant species are those deemed likely to become endangered within the foreseeable future.

Special Status Plant Species

USFWS (2023b) IPaC species list for the study area and TPWD (2023d) county listings were reviewed for special status plant species potentially occurring within the study area. Two federally listed endangered plant species, the black lace cactus (*Echinocereus reichenbachii* var. *albertii*) and Texas wild-rice (*Zizania texana*), and one federal and state listed threatened plant species, the bracted twistflower (*Streptanthus bracteatus*), were identified as having the potential to occur within the study area (USFWS 2023b; TPWD 2023d). TPWD’s TXNDD data did not identify EOR data for special status plant species occurring within the study area (TPWD 2024). A brief description of these species’ life history, habitat requirements, and potential to occur within the study area are summarized below. The legal status and in which county each of these species could potentially be found are indicated in Table 3-6.

Black Lace Cactus

Black lace cactus is a succulent perennial growing approximately 8 inches tall and produces a bright purple-pink flower with a crimson center (TPWD 2023e). This species only grows in South Texas Coastal Bend counties which include Atascosa, Jim Wells, Kleberg, McMullen, and Refugio Counties. The black lace cactus occurs in coastal grasslands and openings in dense scrublands and woodlands (TPWD 2023e). This species may have the potential to occur within the study area where suitable habitat is available.

Bracted Twistflower

The bracted twistflower is federally and also a state listed species and is endemic to the Edwards Plateau ecoregion. It is a short annual plant, growing to about eight inches tall. The entire plant is glabrous with pink to purple flowers. Bracted twistflower occurs on shallow, well-drained gravelly clays and clay loams over limestone hillsides and slopes in openings of live oak (*Quercus virginiana*) and juniper woodlands, as well as in canyon bottoms (Brazos River Authority 2023). Populations of this species may change extensively between years depending on the amount of winter rainfall. The primary causes for its decline are residential development and browsing by white-tailed deer (Poole et al. 2007). This species is not anticipated to occur within the study area due to lack of suitable rocky limestone hillsides and canyon habitat.

Texas Wild-rice

Texas wild-rice is endemic to Texas and the only known populations occur in portions of the Upper San Marcos River within Hays County (TPWD 2023f). This species occurs in the spring-fed San Marcos River within clear, cool, shallow, swift water. Sediments are typically coarse sandy soils and this species flowers year-round (Poole et al. 2007). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Special Status Wildlife Species

The USFWS (2023b) IPaC official species list identified federally listed animal species potentially occurring within the study area. Additionally, the TPWD (2023d) Rare, Threatened, and Endangered Species of Texas by County interactive web map identified state-listed animal species potentially occurring within the study area counties. Federally and/or federally proposed, state-listed, and candidate status animal species potentially occurring within each county of the study area are listed in Table 3-6. Federal status species listed in the TPWD Annotated County Lists of Rare Species have been included in Table 3-6 for consistency. Only USFWS listed threatened or endangered species are afforded federal protection under the ESA. Although only federally-listed threatened or endangered species are protected under the ESA, state-listed species may receive protection under other federal and/or state laws, such as the MBTA, BGEPA, Chapters 67, 68, and 88 of the Texas Parks and Wildlife Code, and Section 65.171–65.184 and 69.01–69.14 of Title 31 of the TAC. A brief description of each

species' life history, habitat requirements, and any documented occurrences within the study area are summarized below.

TPWD's TXNDD data identified one EOR for the state threatened Texas tortoise (*Gopherus berlandieri*) along School Drive in the center of the study area and was last observed at this EOR in 2004 (TPWD 2024).

TABLE 3-6 THREATENED AND ENDANGERED SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

SPECIES		LEGAL STATUS ³		COUNTY ⁴	
COMMON NAME ²	SCIENTIFIC NAME ²	USFWS	TPWD	BEXAR	ATASCOSA
Amphibians					
Cascade Caverns salamander	<i>Eurycea latitans</i>	-	T	X	-
San Marcos salamander	<i>Eurycea nana</i>	T	-	X	-
Texas blind salamander	<i>Eurycea rathbuni</i>	E	-	X	-
Texas salamander	<i>Eurycea neotenes</i>	-	T	X	-
Arachnids					
Cokendolpher Cave harvestman	<i>Texella cokendolpheri</i>	E	-	X	-
Government Canyon Bat Cave meshweaver	<i>Cicurina vespera</i>	E	-	X	-
Government Canyon Bat Cave spider	<i>Tayshaneta microps</i>	E	-	X	-
Madla Cave meshweaver	<i>Cicurina madla</i>	E	-	X	-
Robber Baron Cave meshweaver	<i>Cicurina baronia</i>	E	-	X	-
Birds					
Golden-cheeked warbler	<i>Setophaga chrysoparia</i>	E	E	X	-
Piping plover	<i>Charadrius melodus</i>	T	T	X	X
Rufa red knot	<i>Calidris canutus rufa</i>	T	-	X	X
White-faced ibis	<i>Plegadis chihi</i>	-	T	X	X
White-tailed hawk	<i>Buteo albicaudatus</i>	-	T	-	X
Whooping crane	<i>Grus americana</i>	E	E	X	X
Wood stork	<i>Mycteria americana</i>	-	T	X	X
Crustaceans					
Peck's Cave amphipod	<i>Stygobromus pecki</i>	E	-	X	-
Fishes					
Fountain darter	<i>Etheostoma fonticola</i>	E	-	X	-
Toothless blindcat	<i>Trogloglanis pattersoni</i>	-	T	X	-
Widemouth blindcat	<i>Satan eurystomus</i>	-	T	X	-
Flowering Plants					
Black lace cactus	<i>Echinocereus reichenbachii</i> var. <i>albertii</i>	E	-	-	X
Bracted twistflower	<i>Streptanthus bracteatus</i>	T	T	X	-
Texas wild-rice	<i>Zizania texana</i>	E	-	X	-
Insects					
Beetle (no designated common name)	<i>Rhadine exilis</i>	E	-	X	-
Beetle (no designated common name)	<i>Rhadine infernalis</i>	E	-	X	-
Comal Springs dryopid beetle	<i>Stygoparnus comalensis</i>	E	-	X	-

TABLE 3-6 THREATENED AND ENDANGERED SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA¹

SPECIES		LEGAL STATUS ³		COUNTY ⁴	
COMMON NAME ²	SCIENTIFIC NAME ²	USFWS	TPWD	BEXAR	ATASCOSA
Comal Springs riffle beetle	<i>Heterelmis comalensis</i>	E	-	X	-
Helotes mold beetle	<i>Batrisodea venyivi</i>	E	-	X	-
Monarch butterfly	<i>Danaus plexippus</i>	C	-	X	X
Mammals					
American black bear	<i>Ursus americanus</i>	-	T	X	-
Ocelot	<i>Leopardus pardalis</i>	E	E	-	X
Tricolored bat	<i>Perimyotis subflavus</i>	PE	-	-	-
White-nosed coati	<i>Nasua narica</i>	-	T	X	X
Mollusks					
False spike	<i>Fusconaia mitchelli</i>	PE	T	X	-
Reptiles					
Cagle's map turtle	<i>Graptemys caglei</i>	-	T	X	-
Texas horned lizard	<i>Phrynosoma cornutum</i>	-	T	X	X
Texas tortoise	<i>Gopherus berlandieri</i>	-	T	X	X

¹ According to USFWS (2023b) and TPWD (2023d).

² Nomenclature follows: USFWS (2023b) and TPWD (2023d)

³ Legal status abbreviations: E – Endangered, C – Candidate, PE – Proposed Endangered, T – Threatened

⁴ Indicates the county(ies) the species could potentially occur in based on habitat descriptions described below and known documented ranges.

Federally Listed Threatened and Endangered Species

AMPHIBIANS

San Marcos Salamander

The San Marcos salamander requires clear, constant flowing water with aquatic vegetation over sand and gravel substrates. Its reddish-brown color allows it to camouflage well with aquatic vegetation. The San Marcos salamander is restricted to the outflows of Spring Lake and the riffle just below Spring Lake dam near the City of San Marcos (Tipton et al. 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Texas Blind Salamander

The Texas blind salamander is a cave-dwelling amphibian that requires constant flow of clear water. This species is only seen above ground when strong water flows carry it to the surface. The Texas blind salamander is only known to occur in the Balcones Escarpment near the City of San Marcos and is found within subterranean streams of Purgatory Creek (Tipton et al. 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

ARACHNIDS

Cokendolpher Cave Harvestman

The Cokendolpher Cave harvestman is a species of eyeless spider also referred to as the Robber Baron Cave harvestman. It is a troglobite (NatureServe 2023a) endemic to Bexar County, Texas, where it has only been documented in Robber Baron Cave, a cave which runs underneath a heavily urbanized area in the City of San Antonio. Threats to this species include habitat loss from quarrying operations, cave filling, habitat degradation via pollution, and alterations in water flow (USFWS 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Government Canyon Bat Cave Meshweaver

The Government Canyon Bat Cave meshweaver is a spider endemic to Bexar County, Texas. It is a troglobite (USFWS 2023c) that is only known to occur in Bexar County at Government Canyon Bat Cave located within Government Canyon State Natural Area. Threats to this species include habitat loss from quarrying operations, cave filling, habitat degradation via pollution, and alterations in water flow (USFWS 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat. However, if during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

Government Canyon Bat Cave Spider

The Government Canyon Bat Cave spider is endemic to Bexar County, Texas. It is a troglobite (NatureServe 2023b) that has only been documented in Bexar County at Government Canyon Bat Cave and Surprise Sink located within Government Canyon State Natural Area. Threats to this species include habitat loss from quarrying operations, cave filling, habitat degradation via pollution, and alterations in water flow (USFWS 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat. However, if during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

Madla Cave Meshweaver

The Madla Cave meshweaver is an eyeless spider endemic to Bexar County, Texas. It is a troglobite that has been observed in eight caves including Lost Pothole, Christmas Cave, Helotes Blowhole, Madla's Cave, Madla's Drop Cave, Headquarters Cave, the Hills and Dales Pit, and Robbers Cave within the University of Texas at San Antonio main campus (NatureServe 2023c). Threats to this species include habitat loss from quarrying operations, cave filling, habitat degradation via pollution, and alterations in water flow (USFWS 2012). Genetic research of this species suggests that additional populations may exist outside the eight documented caves (Paquin and Hedin

2004). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat and lack of karst. However, if during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

Robber Baron Cave Meshweaver

The Robber Baron Cave meshweaver is an eyeless spider endemic to Bexar County, Texas. It is a troglobite (NatureServe 2023d) that is only known from Robber Baron Cave within the Alamo Heights karst region. Threats to this species include habitat loss from quarrying operations, cave filling, habitat degradation via pollution, and alterations in water flow (USFWS 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

BIRDS

Golden-cheeked Warbler

The golden-cheeked warbler's entire nesting range is confined to habitat in 33 counties located in central Texas. Nesting typically occurs from March to May in mature oak-juniper woodland areas with a moderate to high density of mature ashe juniper (*Juniperus ashei*) trees mixed with deciduous trees (e.g., oaks) creating dense foliage in the upper canopy (Pulich 1976; Campbell 2003). These oak-juniper woodland vegetation communities are typically located in moist areas along steep-sided slopes, drainages, and bottomlands. However, golden-cheeked warblers will also nest in upland oak-juniper woodlands on flat topography (TPWD 2023g). The golden-cheeked warbler migrates southward to southern Mexico and northern Central America to overwinter. This species has the potential to occur within the study area wherever suitable habitat is found. If during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

Piping Plover

The piping plover is a small migratory shorebird that nests within the Great Lakes, Northern Great Plains or Atlantic Coast (USFWS 2023d). Primary fall migration to Texas is from July to early September, while spring migration occurs from March to early May. Piping plovers are common to locally uncommon winter residents along the Gulf of Mexico coastline (Lockwood and Freeman 2014). Multiple large lakes, ponds, streams, and other aquatic features occur within the study area that could potentially be utilized for migratory habitat by the piping plover during winter migration. This species has the potential to occur within the study area as a transient migrant wherever suitable habitat is found.

Rufa Red Knot

Rufa red knots are migratory and breed in the drier arctic tundra areas while overwintering takes place along shorelines of the Gulf of Mexico and Central and South America (USFWS 2023e). Spring migration occurs in large flocks and takes place from April to June. Preferred habitat includes the shoreline of coasts and bays and sometimes inland mudflats. Their primary prey items are small mussels, clams, snails, and other invertebrates (USFWS 2013). Due to the study area being located outside the migratory corridor and the rare transient nature of the species, it is anticipated that this species will not occur within the study area.

Whooping Crane

The study area is located within the central migratory corridor for the whooping crane (USGS 2023). The migration path includes a 220-mile-wide corridor that begins at their nesting site at Wood Buffalo National Park in Canada and continues south to their wintering grounds at the Aransas National Wildlife Refuge along the Texas coast. The migratory corridor contains 95% of all confirmed whooping crane stopover sightings, during migration. Whooping cranes overwinter in the Aransas National Wildlife Refuge from November through March. During migration, they typically fly at altitudes greater than 1,000 feet but will roost and feed in areas away from human disturbance during nightly stopovers. Stopover areas include large rivers, lakes and associated wetlands, playa lakes, pastureland, and cropland (USFWS 2009). Aquatic features, pastureland, and cropland located within the study area might be utilized during migration. This species has the potential to occur within the study area as a transient migrant wherever suitable habitat is found.

CRUSTACEANS

Peck's Cave Amphipod

Little is known about the life history of the Peck's Cave amphipod, except that it is an eyeless cave obligate. This species has only been observed at spring openings of Comal and Hueco Springs in the Edwards Aquifer area (USFWS 2007; USFWS 2023g). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

FISHES

Fountain Darter

The fountain darter is a species of perch that is endemic to the San Marcos and Comal River headwaters in Hays and Comal Counties, Texas (Thomas et al. 2007). It inhabits clear waters with aquatic vegetation and constant water temperatures. Diet consists of small crustaceans and insect larvae. Females lay their eggs year-round and utilize calmer waters of the river. Fountain darters are often associated with algae mats (Thomas et al. 2007). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

INSECTS

Unnamed Beetle (Rhadine exilis)

This unnamed beetle species is endemic to Bexar County, Texas. It is an eyeless cave obligate that has been documented in about 50 different caves (NatureServe 2023e). *Rhadine exilis* is known only from caves in the southern portion of Camp Bullis Military Base (Reddell and Cokendolpher 2004). Threats to this species include habitat loss from quarrying operations, cave filling, and habitat degradation via pollution, and alterations in water flow (USFWS 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat and lack of karst and caves. However, if during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

Unnamed Beetle (Rhadine infernalis)

This unnamed beetle species is an eyeless cave obligate that has been documented in approximately 39 different caves in Bexar County, Texas (NatureServe 2023f). Threats to this species include habitat loss from quarrying operations, cave filling, and habitat degradation via pollution, and alterations in water flow (USFWS 2012). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat and lack of karst. However, if during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

Comal Springs Dryopid Beetle

The Comal Springs dryopid beetle is translucent, with a rust-colored exoskeleton. It is eyeless and measures approximately three to four millimeters long. The larvae may inhabit the ceilings of spring openings where organic soil and roots are present, whereas the adults are completely aquatic. Diet of the Comal Springs dryopid beetle is unknown; however, it may be like that of other dryopid beetles, which includes detritus and aquatic plants. It has only been collected from Comal Springs and Fern Bank Springs of the Edwards Aquifer (USFWS 2007 and USFWS 2023h). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Comal Springs Riffle Beetle

The Comal Springs riffle beetle is approximately two millimeters long, with a reddish-brown exoskeleton. Diet consists of detritus and microorganisms. They are restricted to springs within the Edwards Aquifer and are only known to occur near headwaters of the Comal and San Marcos rivers (USFWS 2007 and USFWS 2023i). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Helotes Mold Beetle

The Helotes mold beetle is endemic to karst features within Texas. It has been documented in eight caves near Helotes, Texas, northwest of San Antonio. This species is a cave obligate, growing up to 2.4 millimeters long and is believed to be predatory in nature (USFWS 2012; NatureServe 2023g). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat and lack of karst. However, if during surveys habitat for the species is observed occurring within the study area, an absence/presence survey must be conducted and depending on the outcome of these surveys coordination with the SEP HCP may be necessary.

MAMMALS

Ocelot

In Texas, ocelots occur in dense thorny shrublands of the Lower Rio Grande Valley and Rio Grande Plains. Deep fertile clay or loamy soils are generally needed to produce suitable habitat. Typical habitat consists of mixed brush species such as granjeno, brasil, desert yaupon (*Schaefferia cuneifolia*), lotebush, wolfberry (*Lycium bernlandieri*), amargosa, whitebrush, blackbrush, guayacan, catclaw (*Acacia greggii*), cenizo (*Leucophyllum frutescens*), desert olive, and Texas persimmon (TPWD 2011). Dense shrubs and canopy cover are important considerations for suitable habitat. Although the study area shares similar plant species for suitable habitat for the ocelot, this species is not anticipated to occur within the study area due to the study area being north of the known range of suitable habitat. This species is also considered to be very rare throughout its range.

Federal Proposed Endangered Species

MAMMALS

Tricolored Bat

The tricolored bat has a large extensive range throughout eastern and central North America. Throughout its range, the species has many types of roost sites and locations due to their expansive foraging habitat. Tricolored bats are closely associated with forested landscapes and bottomland riparian forest with most foraging occurring within forested riparian corridors. In spring and summer, non-reproductive individuals roost in trees near perennial streams. Maternal and other summertime roosts are found in dead or live tree foliage, caves, mines, and rock crevices, with maternal colonies also occasionally occurring within man-made structures. Winter hibernation sites typically found within caves, mines, cave like tunnels, or large box culverts adjacent to forest habitat (USFWS 2023j). This species is a habitat generalist and has the potential to occur within the study area wherever suitable habitat is found.

MOLLUSKS

False Spike

The false spike is a Guadalupe River Basin endemic and known to occur in the mainstem Guadalupe River between Gonzales and Victoria, Texas (USFWS 2023k). Until as recently as 2011, the false spike was thought to be extinct prior to the re-discovery of the species in the Guadalupe River near Gonzales. This species tends to occur in larger creeks and 3.1.1 rivers with heterogenous mixtures of sand, gravel, or cobble substrates. This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Federal Candidate Species

INSECTS

Monarch Butterfly

The monarch butterfly ranges from North and South America to the Caribbean, Australia, New Zealand, the Pacific Islands, and Western Europe. The species has been proposed as candidate species for protection under the ESA due to decreasing populations and habitat loss. Eastern and western monarch populations migrate both north and south on an annual basis. Populations usually overwinter in Mexico, Texas, Florida, and California and then spend the spring and summer months migrating back north. The entire migration cycle last for four generations of monarchs and no individual makes the round trip. Monarchs are heavily dependent on milkweed plants (*Asclepias* spp.) as larval hosts and to help produce poison. Preferred overwintering habitat includes appropriate roosting vegetation, dense tree cover, access to streams, and warm enough temperatures to allow for flight (NRCS 2023). This species has the potential to occur as a temporary migrant within the study area wherever suitable habitat is found.

Other Federally Protected Species

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) was delisted in 2007 by the USFWS, because the population has recovered beyond the ESA criteria for listing. The status of the bald eagle population is currently monitored by USFWS, and the species is still protected under the MBTA and the BGEPA. Bald eagles may nest and/or winter in Texas. Nests are built in treetops or on cliffs near rivers or large lakes. The bald eagle primarily preys on fish but will also eat birds, small mammals, and turtles and will often scavenge or steal carrion (Campbell 2003; USFWS 2023i). This species has the potential to occur within the study area wherever suitable habitat is found.

Golden Eagle

The golden eagle (*Aquila chrysaetos*) is one of the largest raptors in North America. Breeding range spans from western and northern Alaska, eastward to the Northwest Territories of Canada, south to northern Mexico and Texas, western Oklahoma, and western Kansas. The species' North American winter range extends from south-central Alaska, southern Canada, and casually further southward. As habitat generalists, this species has been found inhabiting open to semi-open country that includes prairies, sage brush, arctic alpine and tundra, savanna, sparse woodlands, and mountainous or hilly barren areas (USFWS 2023m). In Texas, golden eagles occur more commonly in the western portion of the state where they breed at high elevation (8,600 above mean sea level) in mountains and canyons. This species has the potential to occur within the study area wherever suitable habitat is found.

State Listed Threatened and Endangered Species

AMPHIBIANS

Cascade Caverns Salamander

The Cascade Caverns salamander is a small amphibian endemic to Texas and restricted to springs and karst aquatic habitats within the Edwards Aquifer (USFWS 2023n). The salamander is pale brown to yellowish in color and grows up to four inches in length. Cave-dwelling forms of the Cascade Caverns salamander have greatly reduced nonfunctional eyes and little skin pigmentation. Other populations of this species have more skin pigmentation and functional eyes (Powell et al. 2016). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

Texas Salamander

The Texas salamander is endemic to Bexar and Kendall Counties, Texas near the city of Helotes. It is adapted to living in subterranean streams and creeks. This subterranean species is capable of traversing upland habitats when conditions are wet but may rarely do so successfully (NatureServe 2023h). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

BIRDS

White-faced Ibis

The white-faced ibis prefers freshwater marshes, swamps, ponds, rivers, sloughs, and irrigated rice fields, but will also use brackish and saltwater habitats (Lockwood and Freeman 2014). This species is a colonial nester and forages on insects, newts, leeches, earthworms, snails, crayfish, frogs, and fish (TPWD 2023b). The white-faced ibis commonly breeds and winters along the Texas Gulf Coast (Arvin 2007). This species has the potential to occur in the study area as a non-breeding migrant wherever suitable habitat is found.

White-tailed Hawk

White-tailed hawks are resident species in their range which extends local from coastal south Texas plains to Mexico and as far south as South America. This species nests from near sea level to about 160 feet in elevation in savannas with short trees with average heights of 12 feet and shrubs (Arnold 2001a). This species has the potential to occur within the study area wherever suitable habitat is found.

Wood Stork

The wood stork inhabits prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including saltwater areas. This species usually roosts communally in tall snags, sometimes in association with other wading birds and historically nested in Texas (Arnold 2001b). This species has the potential to occur within the study area wherever suitable habitat is found.

FISHES

Toothless Blindcat

The toothless blindcat is a small, eyeless fish restricted to freshwater pools and groundwater within caves and karst located in the Medina and Upper San Antonio River watersheds. Diet of the toothless blindcat may consist of detritus and fungi (USFWS 2023o). This species is not anticipated to occur within the study area due to the lack of suitable habitat within the study area.

Widemouth Blindcat

The widemouth blindcat is a small, white to pink eyeless fish restricted to freshwater pools and groundwater within caves and karst located in the Medina and Upper San Antonio River watershed. Diet of the widemouth blindcat consists of shrimp, amphipods, and isopods (USFWS 2023p). This species is not anticipated to occur within the study area due to the lack of suitable habitat within the study area.

MAMMALS

American Black Bear

The American black bear is listed as threatened due to similarities with the Louisiana black bear (*Ursus americanus luteolus*), which has now been federally delisted. The black bear is a stocky, large, omnivore with black to cinnamon brown fur that consumes insects, roots, and tubers. Preferred habitat in Texas includes bottomland hardwood forest and large tracts of inaccessible forested areas (TPWD 2023i). This species historically inhabited large tracts of forest and woodland throughout Texas and was once thought to be extirpated from the state. This species is not anticipated to occur within the study area due to the lack of suitable habitat within the study area.

White-nosed Coati

The white-nosed coati is a member of the raccoon family (*Procyonidae*) that inhabits cropland/hedgerows, mesquite grasslands, oak scrub, riparian corridors, and canyons of south and west Texas but could once historically be found throughout central Texas as well (Schmidly and Bradley 2016). Denning occurs in snags or hollow trees. Adult males are solitary while females and young males travel in groups of 12 or more. White-nosed coatis are most active during mornings and evenings at which times they forage canopies and the ground for fruits, insects, birds, and small mammals (Schmidly and Bradley 2016). This species is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat.

REPTILES

Cagle's Map Turtle

The Cagle's map turtle habitat range is limited to the Guadalupe and San Antonio River basins, inhabiting the Guadalupe, San Antonio, and San Marcos Rivers. This species prefers rivers with slow to moderate flow and silt and gravel substrates. Optimal habitat includes riffles and pools. Like most other turtles, this species basks in the sun on brush piles along river and stream banks (Conant and Collins 1991; Dixon 2013). This species has the potential to occur within the study area wherever suitable habitat is found.

Texas Horned Lizard

The Texas horned lizard inhabits open, arid to semiarid regions with sparse vegetation including open desert, grasslands, and shrubland containing bunch grasses, cacti, and yucca (TPWD 2023j). Preferred soils vary from pure sands and sandy loams to coarse gravels, conglomerates, and desert pavements (Henke and Fair 1998). Texas horned lizards are active between early spring to late summer and thermo-regulate by basking or burrowing into the soil. During winter inactivity periods, this species aestivates beneath the surface six to 12 inches deep under rocks, leaf litter, or abandoned animal burrows. Populations are thought to have decreased because of land use conversions, increased pesticide/herbicide use, collection, and increased fire ant populations. The Texas horned lizard forages primarily on the red harvester ant (*Pogonomyrmex barbatus*), but also consumes grasshoppers, beetles, and grubs (Dixon 2013; Henke and Fair 1998). This species has the potential to occur within the study area wherever suitable habitat is found.

Texas Tortoise

The Texas tortoise is a long-lived species with a shell that has characteristically yellowish-orange, bluntly-horned scutes (shell plates). Habitat preferences include arid brush, scrub woods, and grass-cactus associations with grassy understories (TPWD 2023k). The Texas tortoise is active during March to November and when inactive, it occupies shallow depressions at the base of bushes or cactus, underground burrows, or under other suitable objects such as man-made debris. The tortoise feeds on fruits of prickly pear and other mostly succulent plants. This species has the potential to occur within the study area wherever suitable habitat is found.

3.2 Human Resources/Community Values

3.2.1 Land Use

Jurisdiction does not necessarily represent land ownership. Potential conflicts that could arise from crossing jurisdictional boundaries were evaluated in this study. The study area is located within the jurisdictional boundary of Bexar and Atascosa Counties. The northern portion of the study area is within areas of San Antonio's municipal boundary.

The study area covers approximately 613 square miles in Bexar and Atascosa Counties. Land uses within the study area were identified and placed into the following categories: urban/developed, planned land use, agriculture, oil and gas facilities, transportation/aviation/utility features, communication towers, and parks and recreation areas. The primary sources of land use information were obtained from interpretation of aerial photographs, USGS topographical maps, and vehicular reconnaissance surveys from accessible public viewpoints. Planned land use features were limited to known features obtained from governmental entities and mobility authorities.

Residential Areas

The urban/developed classification represents concentrations of surface disturbing land uses, which include habitable structures and other developed areas, characterized with low, medium, and high intensities. The various levels of development include a mix of institutional, commercial, and/or industrial land uses. Developed low, medium, and high intensity areas were identified using aerial photograph interpretation and reconnaissance surveys. These classifications are described below:

- **Developed Low Intensity** areas typically include rural settings with single-family housing units.
- **Developed Medium Intensity** areas typically include single-family housing units that are grouped in residential subdivisions and might include peripheral commercial structures.
- **Developed High Intensity** includes highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses, and commercial/industrial parks. Areas with the highest concentration of development are typically located within or near the towns and communities in the study area.

The study area is located within Bexar and Atascosa Counties and partially within San Antonio. It also includes the City of Sandy Oaks, City of Somerset, City of Von Ormy, City of Jourdanton, City of Pleasanton, City of Poteet, and the City of Christine. The majority of the study area is in a rural setting predominantly characterized by agricultural and rangeland/pasture with the exception of residential and commercial development concentrated

throughout the incorporated areas of the study area. The habitable structures in the study area are generally considered medium to low intensity development. Habitable structures were identified using aerial imagery, Google Earth, and reconnaissance surveys. The PUC definition of a habitable structure was applied for this routing study. The PUC's Substantive Rules (16 TAC § 25.101(a)(3)) define habitable structures as “structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis. Habitable structures include, but are not limited to, single-family and multi-family dwellings and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, places of worship, hospitals, nursing homes, and schools.”

Schools

The study area is located within seven school districts: Somerset Independent School District (ISD), Southwest ISD, Southside ISD, Charlotte ISD, Jourdanton ISD, Poteet ISD, and Pleasanton ISD. There are 24 schools identified within the study area. Somerset ISD has one prekindergarten and kindergarten combined, two elementary, one middle, and two high schools located within the study area. Southside ISD has one prekindergarten and kindergarten combined, two elementary, two middle, and one high school located within the study area. Poteet ISD has one elementary, two middle, and one high school located within the study area. Pleasanton ISD has one prekindergarten through elementary, one elementary, one middle, and one high school located within the study area. Jourdanton ISD has one prekindergarten through elementary, one elementary, one high, and one elementary through high school combined. Charlotte ISD and Southwest ISD do not have any schools located within the boundaries of the study area (Texas Education Agency 2023).

Planned Land Use

The planned land use component identifies objectives and/or policies regarding land use goals and plans, including conservation easements, managed lands, and proposed developments. Cities and counties typically prepare comprehensive land use plans to provide strategic direction by goals and objectives for the individual city or county. City and county websites were reviewed, and correspondence was submitted to local and county officials to identify potential planned land use conflicts. The City of Von Ormy, City of Somerset, City of Jourdanton, City of Poteet, City of Pleasanton, City of Christine, and Atascosa County do not have a comprehensive land use plan available on their website.

San Antonio has a Comprehensive Plan intended to provide guidance in future decisions related to land use, infrastructure improvements, transportation, and more (City of San Antonio 2023a). The City of Sandy Oaks has a Master Plan that outlines the comprehensive strategy for land use, park management, future infrastructure planning (City of Sandy Oaks 2023). Additionally, the City of San Antonio, the City of Von Ormy, and the City of Jourdanton have set up zoning districts to provide information on how a property may be developed. Various

zoning designations were identified throughout the northern portion of the study area (City of San Antonio 2023b, City of Von Ormy 2023; City of Jourdanton 2023). No Neighborhood Conservation Districts were identified within the study area. However, there were several areas with concentrated residential development identified throughout the study area, in both suburban and rural settings. The City of San Antonio's GIS map data indicates land that is planned for future residential development throughout the northern portion of the study area. (City of San Antonio 2023b).

Bexar County updated the Bexar County Parks Master Plan in 2021, but no new parks are planned within the study area (Bexar County 2023a). The Bexar County Office of Emergency Management has an Emergency Management Plan which provides guidance for emergency management activities and an overview of methods for mitigation, preparedness, response, and recovery (Bexar County 2023b).

The study area falls within the Alamo Area Council of Governments, a regional planning commission that coordinates regional approaches for transportation, environmental quality, economic development, and emergency preparedness (Alamo Area Council of Governments 2023).

Conservation Easements

A conservation easement is a restriction property owners voluntarily place on specified uses of their property to protect natural, productive or cultural features. The property owner retains legal title to the property and determines the types of uses to allow or restrict. The property can still be bought, sold, and inherited, but the conservation easement is tied to the land and binds all present and future owners to its terms and restrictions. Conservation easement language will vary as to the individual property owner's allowances for additional developments on the land. The land trusts facilitate the easement and ensure compliance with the specified terms and conditions.

Governmental and non-governmental organization websites were reviewed to identify any potential conservation easements within the study area. These included The Nature Conservancy (2023), Texas Land Conservancy (TLC; 2023), and the National Conservation Easement Database (NCED; 2024). The NCED is an initiative of the U.S. Endowment for Forestry and Communities. The current NCED team includes Ducks Unlimited and The Trust for Public Land. The NCED team collaborates on data acquisition and standards with the USGS Science Analytics and Synthesis's. The NCED team also collaborates with agencies and organizations nationwide, including The Nature Conservancy and Land Trust Alliance (NCED 2024).

Conservation easements identified are based on readily available data and are not all inclusive. Based on review of The Nature Conservancy (2023), TLC (2023), and NCED (2024), there are no conservation easements listed

for the study area. See further discussion in Section 3.3 for parks and recreation areas and other conservation lands identified within the study area.

3.2.2 Agriculture

Agriculture is a significant segment of the economy throughout Texas, and the study area counties have an active agricultural sector. According to the USDA's National Agricultural Statistics Service's 2017 Census of Agriculture, the total market value for agricultural products sold for both study area counties was \$142,164,000, a 10% decrease from the 2012 market value. Atascosa and Bexar Counties experienced a decrease of total market value of agricultural products from 2012 to 2017. The number of farms in the study area decreased from 4,444 in 2012 to 4,201 in 2017 (a decrease of 5%) (USDA 2012 and 2017).

Livestock sales accounted for a majority (72 percent) of agricultural sales in Atascosa County, while crop sales accounted for a majority (74 percent) of agricultural sales in Bexar County (USDA 2012 and 2017). Detailed agricultural information for the study area counties is provided in Table 3-7.

TABLE 3-7 AGRICULTURE INFORMATION WITHIN THE STUDY AREA

County	Total Market Value of Agricultural Products			Distribution of Products (2017)		Number of Farms		
	2012	2017	Change	Crop Sales	Livestock Sales	2012	2017	Change
Atascosa County	\$84,999,000	\$74,287,000	-13%	28%	72%	1,987	1,681	-15%
Bexar County	\$72,387,000	\$67,877,000	-6%	74%	26%	2,457	2,520	3%

Source: USDA 2012 and 2017.

3.2.3 Transportation/Aviation

Transportation

Federal, state, and local roadways were identified using TxDOT county transportation maps, Texas Natural Resources Information System data, and field reconnaissance surveys. The major roadway transportation system within the study area includes IH 35, IH 37, US Hwy 281, SH 1604, SH 16, SH 1604, SH 173, SH 97, FM 1332, FM 1334, FM 140, FM 1470, FM 1784, FM 1937, FM 2537, FM 3006, FM 3350, FM 3387, FM 476, and FM 3510. Several county and local roads were identified in the study area (TxDOT 2023a).

TxDOT's "Project Tracker," which contains detailed information by county for every project that is or could be scheduled for construction, was reviewed to identify any state roadway projects planned within the study area. The TxDOT Project Tracker indicated there are several state roadway projects planned within the study area

(TxDOT 2023b). A review of the City of San Antonio's bond projects did not indicate any city roadway projects planned within the study area (City of San Antonio 2023c).

Bexar County

- There is a total of 10 projects to perform a seal coat within the study area, with one on IH 35, IH 37, FM 3499, SH 16, FM 1937, and FM 2537, and two on State Highway Loop (SL) 1604 and two on FM 2790 that are underway or begin soon.
- There is one safety improvement project within the study area on SL 1604 that is underway or begins soon.
- There is one overlay project within the study area on IH 35 that is underway or begins soon.
- There is one intersection and operational improvements project within the study area on US Hwy 281 that is underway or begins soon.
- There are two projects to perform a seal coat within the study area on IH 35 and FM 2790 that will begin construction within four years.
- There are two safety improvement projects within the study area on US Hwy 281 and one on SH 16 that will begin construction within four years.
- There is one project to perform a bridge replacement within the study area on FM 1937 that will begin construction within four years.
- There is one project to perform widening within the study area on SL 1604 that will begin construction within five to ten years.

Atascosa County

- There are nine seal coat projects within the study area on US Hwy 281, one each on State Spur 242, SL 282, SH 173, FM 140, FM 3510, FM 3350, FM 1334, FM 536, two on FM 1333, two on IH 37, and two on FM 476 that are underway or begin soon for a total of 23 projects.
- There are three safety improvement projects within the study area on SH 97, IH 37 and FM 140 that are underway or begin soon.
- There are four seal coat projects within the study area on US Hwy 281, one each on SH 97, State Spur 242, SH 16, two on FM 476, and three on FM 140 that will begin construction within four years for a total of nine projects.
- There are two safety improvement projects within the study area on SH 97 and FM 1333, and two on US Hwy 281 that will begin construction within four years for a total of four projects.
- There is one project to perform rehabilitation of the existing road within the study area on FM 476 that will begin construction within four years.

- There is one project to perform maintenance on pedestrian, sidewalks, and curb ramps within the study area on SH 16 that will begin construction within four years.
- There is one overlay project within the study area on IH 37 that will begin construction within four years.
- There is one project to perform preventative maintenance and rehabilitation within the study area on US Hwy 281 that will begin construction within four years.

One Union Pacific owned railroad and one San Miguel Power Plant owned railroad were identified within the study area (United States Department of Transportation [USDOT] 2023). The Union Pacific is oriented in a north-southeast and northwest-southeast direction in the northern and eastern portions of the study area and appears to be active. The San Miguel Power Plant railroad is oriented in a southwest-northeast direction in the southeast portion of the study area and appears to be active.

Aviation

POWER reviewed the San Antonio Sectional Aeronautical Chart (FAA 2023a) and the Chart Supplement for the South Central US (formerly the Airport/Facility Directory) (FAA 2023b) to identify FAA registered facilities within the study area subject to notification requirements listed in 14 C.F.R. Part 77.9. Facilities subject to notification requirements listed in 14 C.F.R. Part 77.9 include public-use airports listed in the Airport/Facility Directory (currently the Chart Supplement), public-use or military airports under construction, airports operated by a federal agency or DoD, or an airport or heliport with at least one FAA-approved instrument approach procedure.

The Chart Supplement for the South Central US used in conjunction with the San Antonio Sectional Aeronautical Chart, contains all public-use airports, seaplane bases and public-use heliports, military facilities, and selected private-use facilities specifically requested by the DoD for which a DoD Instrument Approach Procedure has been published in the US Terminal Procedures Publication.

One public-use FAA registered airports was identified within the study area. Pleasanton Municipal Airport, located in the central portion of the study area (FAA 2023b).

No public-use heliports or heliports with an instrument approach procedure are listed within the study area in the Chart Supplement for the South Central US (FAA 2023b).

In addition, POWER also reviewed the FAA database (FAA 2023c), USGS topographic maps, recent aerial photography, and conducted field reconnaissance from publicly accessible areas to identify private-use airstrips and private-use heliports not subject to notification requirements listed in 14 C.F.R. Part 77.9. Two private-use

heliports were identified within the central portion of the study area, the Methodist Hospital South Heliport and the Pleasanton Fire Department Heliport. Two private airstrips were identified within the study area. The Alderman Farm Airstrip was identified within the central portion of the study area and the Cannon Field Airport was identified within the north-central portion of the study area (FAA 2023b).

3.2.4 Communication Towers

Review of the Federal Communication Commission (FCC) database indicated that there is one amplitude modulation radio (AM radio) transmitters within the study area. There are also 89 frequency modulation radio (FM radio) transmitter/microwave tower/other electronic installations identified within the study area. There is one additional FM radio transmitters/microwave towers/other electronic installations within 2,000 feet of the northwestern portion of the study area boundary (FCC 2023).

3.2.5 Utility Features

Utility features reviewed include existing electrical transmission lines, distribution lines, pipelines, water and gas/oil wells, and water and gas/oil storage tanks. Data sources used to identify existing electrical transmission and distribution lines include utility company and regional system maps, aerial imagery, USGS topographic maps, additional available planning documents, and field reconnaissance surveys. Existing PLATTS (2023) electric utilities identified within the study area include twelve 69 kV, twenty-one 138 kV, and nine 345 kV transmission lines throughout the study area. Distribution lines are prevalent throughout the developed portions of the study area; however, these features were not mapped or inventoried.

Data was obtained from the RRC (RRC 2023a) which provided a GIS layer for existing oil and gas wells, pipelines, and supporting facilities. The 2023 RRC dataset along with aerial photograph interpretation and field reconnaissance were used to identify and map existing oil and gas related facilities. Many oil and gas wells were identified with the highest concentration of oil and gas wells located in the northwestern and central portions of the study area. Several pipelines were also identified with the highest concentration located in the central and southern portions of the study area (RRC 2023a).

Several water wells were identified with the highest concentration located throughout the central portion of the study area. The water wells located within the study area are public supply water wells (TWDB 2023b).

3.2.6 Socioeconomics

This section presents a summary of economic and demographic characteristics for these counties and describes the socioeconomic environment of the study area. Literature sources reviewed include publications of the United States Census Bureau (USCB), and the Texas State Data Center (TXSDC).

Population Trends

Atascosa and Bexar Counties experienced a population increase between 2010 and 2020 of 9% and 17%, respectively. By comparison, population at the state level increased by nearly 16% between 2010 and 2020 (USCB 2010 and 2023).

According to TSDC projections, Atascosa and Bexar Counties are projected to experience a population growth between 2020 and 2050. The population increase in Atascosa County for 2020 to 2030 is projected to be 9%. The population increases for Atascosa County for 2030 to 2040 is projected to be 8%. The population increase in Atascosa County for 2040 to 2050 is projected to be 7%. The population increase in Bexar County for 2020 to 2030 is projected to be 15%. The population increase in Bexar County for 2030 to 2040 is projected to be 13%. The population increase in Bexar County for 2040 to 2050 is projected to be 10%. By comparison, the population of Texas is expected to experience population increases of 13%, 12%, and 10% over the next three decades, respectively (TSDC 2022). Table 3-8 presents the past population trends and projections for Atascosa and Bexar Counties and for the state of Texas.

TABLE 3-8 POPULATION TRENDS

STATE/COUNTY	PAST		PROJECTED		
	2010	2020	2030	2040	2050
Texas	25,145,561	29,145,505	32,912,882	36,807,213	40,645,784
Atascosa County	44,911	48,981	53,324	57,374	61,473
Bexar County	1,714,773	2,009,324	2,302,829	2,599,727	2,865,834

Sources: USCB 2010 and 2023; TSDC 2022.

Employment

From 2010 to 2022, the civilian labor force (CLF) in Atascosa County increased by 8% (1,540 people) and the CLF in Bexar County increased by 28% (220,706 people). By comparison, the CLF at the state level grew by 23% (2,711,288 people) over the same time period (USCB 2023). Table 3-9 presents the CLF for the study area counties and the state of Texas for the years 2010 and 2022.

Between 2010 and 2022, Atascosa County experienced a decrease in its unemployment rate from 9.5% in 2010 to 6.4% in 2022, while Bexar County experienced a decrease in its unemployment rate from 6.9% in 2010, to 5.5% in 2022. By comparison, the state of Texas also experienced a decrease in the unemployment rate over the same period. The state's unemployment rate decreased from 7.0% in 2010, to 5.2% in 2022 (USCB 2023). Table 3-9 presents the employment and unemployment data for the study area counties and the state of Texas for the years 2010 and 2022.

TABLE 3-9 CIVILIAN LABOR FORCE AND EMPLOYMENT

STATE/COUNTY	2010	2022
Texas		
Civilian Labor Force	11,962,847	14,674,135
Employment	11,125,616	13,908,128
Unemployment	837,231	766,007
Unemployment Rate	7.00%	5.20%
Atascosa County		
Civilian Labor Force	20,416	21,956
Employment	18,478	20,548
Unemployment	1,938	1,408
Unemployment Rate	9.50%	6.40%
Bexar County		
Civilian Labor Force	793,358	1,014,064
Employment	738,564	957,948
Unemployment	54,764	56,116
Unemployment Rate	6.90%	5.50%

Source: USCB 2010 and 2023.

Leading Economic Sectors

The major occupations in Atascosa and Bexar Counties in 2022 are listed under the category of management, business, science, and arts occupations, followed by sales and office occupations (USCB 2023). Table 3-10 presents the number of persons employed in each occupation category during the year 2022 in the study area.

TABLE 3-10 OCCUPATIONS IN THE COUNTIES OF THE STUDY AREA

OCCUPATION	ATASCOSA COUNTY	BEXAR COUNTY
Management, business, science, and arts occupations	5,385	359,381
Service occupations	3,667	177,740
Sales and office occupations	4,322	221,469
Natural resources, construction, and maintenance occupations	3,917	91,230
Production, transportation, and material moving occupations	3,257	108,128

Source: USCB 2023.

In 2010 and 2022, the industry group employing the most people in Atascosa and Bexar Counties was educational services, and health care and social assistance (USCB 2023). Table 3-11 presents the number of persons employed in each of the industries in the study area for the years 2010 and 2022.

TABLE 3-11 INDUSTRY IN THE COUNTIES OF THE STUDY AREA

INDUSTRY GROUP	ATASCOSA COUNTY		BEXAR COUNTY	
	2010	2022	2010	2022
Agriculture, forestry, fishing and hunting, and mining	1,046	1,824	4,864	9,829
Construction	2,568	2,101	60,387	78,240
Manufacturing	1,516	1,719	44,307	52,214
Wholesale trade	635	394	21,801	20,302
Retail trade	2,308	2,706	87,948	112,093
Transportation and warehousing, and utilities	818	2,009	35,297	50,748
Information	282	144	18,424	15,106
Finance and insurance, and real estate and rental and leasing	1,035	1,099	71,493	84,923
Professional, scientific and management, and administrative and waste management services	1,107	1,145	79,856	117,949
Educational services, and health care and social assistance	4,307	3,287	163,102	221,059
Arts, entertainment, and recreation, and accommodation and food services	1,208	1,929	73,044	105,164
Other services, except public administration	971	1,120	37,264	45,614
Public administration	677	1,071	40,777	44,707

Source: USCB 2010 and 2023.

3.2.7 Community Values

The term “community values” is included as a factor for the consideration of transmission line route approval under PURA 37.056(c)(4)(A-D); however, the term has not been defined by the PUC. The PUC CCN application requires information concerning the following items related to community values:

- Public open-house meeting.
- Approval or permits required from other governmental agencies.
- Brief description of the area traversed.
- Habitable structures within 500 feet of the centerline for transmission lines greater than 230 kV.
- AM and FM radio, microwave, and other electronic installations in the area.
- FAA-registered public use airstrips, private airstrips, and heliports located in the area.
- Irrigated pasture or croplands utilizing center-pivot or other traveling irrigation systems.
- Parks and recreation areas.
- Historical and archeological sites.

In addition, POWER also evaluated the Project for community values and resources that might not be specifically listed by the PUC, but that might be of importance to a particular community as a whole. Although the term “community values” is not formally defined in PUC rules, in several dockets the PUC and Staff have used the following as a working definition: the term “community values” is defined as *a shared appreciation of an area or other natural resource by a national, regional, or local community*. Examples of a community resource would be a park or recreational area, historical or archeological site, or a scenic vista (aesthetics). POWER mailed consultation letters to various local elected and appointed officials and assisted CPS Energy and STEC personnel in hosting two public open house meetings to identify and collect information regarding community values and community resources.

3.3 Recreational and Park Areas

The PUC’s CCN application specifically requires reporting of recreational and park areas owned by a governmental body or an organized group, club, or church. Federal and state database searches and county/local maps were reviewed to identify any parks and/or recreational areas within the study area. Reconnaissance surveys were also conducted to identify any additional park or recreational areas.

3.3.1 National/State/County/Local Parks

No national or state parks were identified within the study area, however, the El Camino Real de los Tejas national historic trail is located within the study area (National Parks Service [NPS] 2024a; TPWD 2023).

Several county and local parks were identified, located primarily in the incorporated areas within the study area. There were ten local park and recreational areas identified within the study area in Bexar County and 16 local park and recreational areas identified within the study area in Atascosa County, which include:

Bexar County

Von Ormy City Park, Somerset City Park, Medina River Natural Area, Medina River Preserve, Medina River Greenway Trail, Leon Creek Preserve, Vernon G Schimel Memorial Park, Braunig Lake Park, Campo Azteca Soccer Fields, and Mitchell Lake Wildlife Refuge.

Atascosa County

Poteet Canyon Park, Maxwell Park, Poteet Strawberry Festival Grounds, Poteet Municipal Park, Andrew Robles Field, Cowboy Fellowship Church Rodeo Arena, Pleasanton City Park, Pleasanton Country Club-Golf Club, Pleasanton City Aquatic Center, Iron Gate Park, Jourdanton City Park, Christine City Park, Atascosa River Park, Hildalgo Park, Texas Military Polo Club, and Mission City Soccer Complex.

There were also three TxDOT roadside parks identified within the study area (Google Earth 2023). There are no wildlife management areas located within the study area (TPWD 2023l).

Two public hunting areas were identified within the study area. The Von Ormy hunting area is located in the northwestern portion of the study area, and Lone Star Pass hunting area which is located in the north-central portion of the study area (TPWD 2023m).

Additional recreational activities such as hunting and fishing might occur on private properties throughout the study area but are not considered to be open to the general public.

3.3.2 Wildlife Viewing Trails

Review of the TPWD *Great Texas Wildlife Trails Heart of Texas East* indicates that there is one wildlife viewing trail, the Mission Loop, located within the study area (TPWD 2023n). There are also three sites of interest listed by TPWD along the Mission Loop trail located within the study area, the Braunig Lake Park, Medina River Natural Area, and Applewhite Crossing (TPWD 2023n). Braunig Lake Park is a recreational area that offers various outdoor activities such as fishing, boating, picnicking, and hiking off the shore of Braunig Lake. The Medina River Natural Area is a conservation area that features hiking and biking trails, birding and wildlife viewing in mixed brush and riparian woodland habitats along the Medina River. Applewhite Crossing is a stream crossing along the El Camino Real de los Tejas and crosses the Medina River. These sites are all located within the northern portion of the study area.

3.4 Aesthetic Values

PURA § 37.056(c)(4)(C) incorporates aesthetics as a consideration when evaluating proposed electric transmission facilities. There are currently no formal guidelines provided for managing visual resources on private, state, or county owned lands. For the purposes of this study, the term aesthetics is defined by POWER to accommodate the subjective perception of natural beauty in a landscape and measure an area's scenic qualities. The visual analysis was conducted by describing the regional setting and determining a viewer's sensitivity. Related literature, aerial photograph interpretation, and field reconnaissance surveys were used to describe the regional setting and to determine the landscape character types for the area.

Consideration of the visual environment includes a determination of aesthetic values (where the major potential effect of a project on the resource is considered visual) and recreational values (where the location of a transmission line could potentially affect the scenic enjoyment of the area) that would help define a viewer's sensitivity. POWER considered the following aesthetic criteria that combine to give an area its aesthetic identity:

- Topographical variation (hills, valleys, etc.)

- Prominence of water in the landscape (rivers, lakes, etc.)
- Vegetation variety (woodland, meadows)
- Diversity of scenic elements
- Degree of human development or alteration
- Overall uniqueness of the scenic environment compared with the larger region

The study area consists of primarily rural and industrial development with some residential and commercial development scattered throughout. The majority of the study area has been impacted by land improvements associated with residential structures, commercial and agricultural activities, local roadways, and various utility corridors. Overall, the study area viewscape consists of medium intensity development.

No known high-quality aesthetic resources, designated views, or designated scenic roads or highways were identified within the study area (Federal Highway Administration 2023). The study area is located within the Texas Hill Country Trail Region and the Texas Independence Trail Region. There are no identified sites of interest within the study area (THC 2023).

A review of the NPS website did not indicate any Wild and Scenic Rivers, National Monuments, National Memorials, National Historic Sites, National Battlefields, within the study area; however, as mentioned above in Section 3.3.1, the El Camino Real de los Tejas National Historic Trail is located within the study area (National Wild and Scenic Rivers System 2024; NPS 2024b, 2024c, and 2024d).

Based on these criteria, the study area exhibits a medium degree of aesthetic quality for the region. The majority of the study area maintains the feel of a rural community and agricultural setting. Although some portions of the study area might be visually appealing, the aesthetic quality of the study area overall is not distinguishable from that of other adjacent areas within the region.

3.5 Historical (Cultural Resource) Values

Section 37.056(c)(4)(A-D) of PURA incorporates historical and aesthetic values as a consideration when evaluating proposed electric transmission facilities. The PUC Standard Application for a CCN further stipulates that known historical sites within 1,000 feet of an alternative route will be listed, mapped, and their distances from the centerline of the alternative route documented in the CCN application filed for consideration. Archeological sites within 1,000 feet of a route will be listed and their distances from the centerline documented but shall not be shown on maps for the protection of the site. The sources consulted to identify known sites (national, state, or local commission) must also be listed.

The THC is the state agency responsible for historic preservation. The THC, working in conjunction with the TARL, maintains records of previously recorded cultural resources and records of previous field investigations in Texas. POWER reviewed cultural resource information from the THC's restricted-access online TASA (THC 2024a) and GIS shapefiles acquired from TARL (dated November 3, 2023) to identify and map the locations of previously recorded cultural (archeological and historical) resources within the study area. Previously recorded cultural resource site data available online from the Texas Historical Sites Atlas (THSA) (THC 2024b) were also reviewed to identify the locations of designated historical sites, cemeteries, and Official Texas Historical Markers (OTHM) within the study area. TxDOT's Historic Resources of Texas Aggregator database was also reviewed for properties and bridges that are listed or determined eligible for listing on the NRHP. At the national level, NPS websites and data centers were reviewed to identify locations and boundaries for nationally designated historic landmarks, trails, and battlefield monuments.

Together, archeological and historical sites are often referred to as cultural resources. Under the NPS' standardized definitions, cultural resources include districts, sites, buildings, structures, or objects important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. For this study, cultural resources have been divided into three major categories: archeological resources, historical resources, and cemeteries. These three categories correlate to the organization of cultural resource records maintained by the THC and TARL.

Archeological resources are locations where human activity has measurably altered the earth or left deposits of physical remains (e.g., burnt rock middens, stone tools, petroglyphs, house foundations, bottles). Archeological resources can date to either prehistoric times or the historic era.

Historical resources typically include standing buildings (e.g., houses, barns, outbuildings) but can also include structures (e.g., dams, canals, bridges, roads, silos) and districts that are non-archeological in nature.

Cemeteries are places of human interment and may include large public burial grounds with multiple burials, small family plots with only a few burials or individual grave sites. In some instances, cemeteries may be designated as Historic Texas Cemeteries by the THC and may be recognized with an OTHM. Cemeteries may also be documented as part of the THC's Record, Investigate and Protect program.

3.5.1 Cultural Background

Pre-Contact

The study area is in the Central and Southern Planning Region as delineated by the THC (Mercado-Allinger et al. 1996) (Figure 3-4). More specifically, the study area is located within the South Texas archeological region as mapped by Perttula (2004), near the border between the South Texas and Central Texas archeological regions, and the Central Texas and the Savannah and Prairie archeological regions. Although the archeological record within

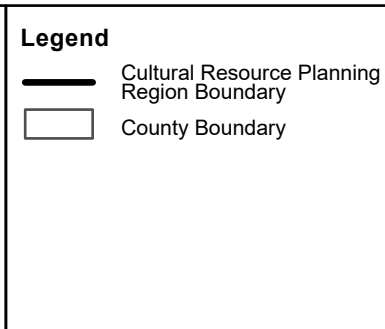
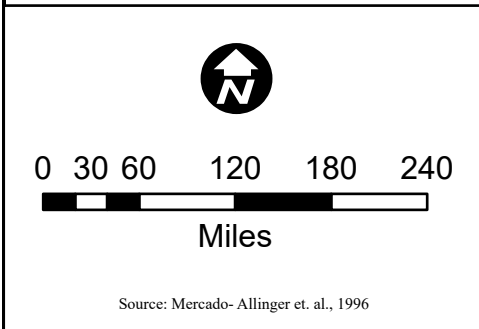
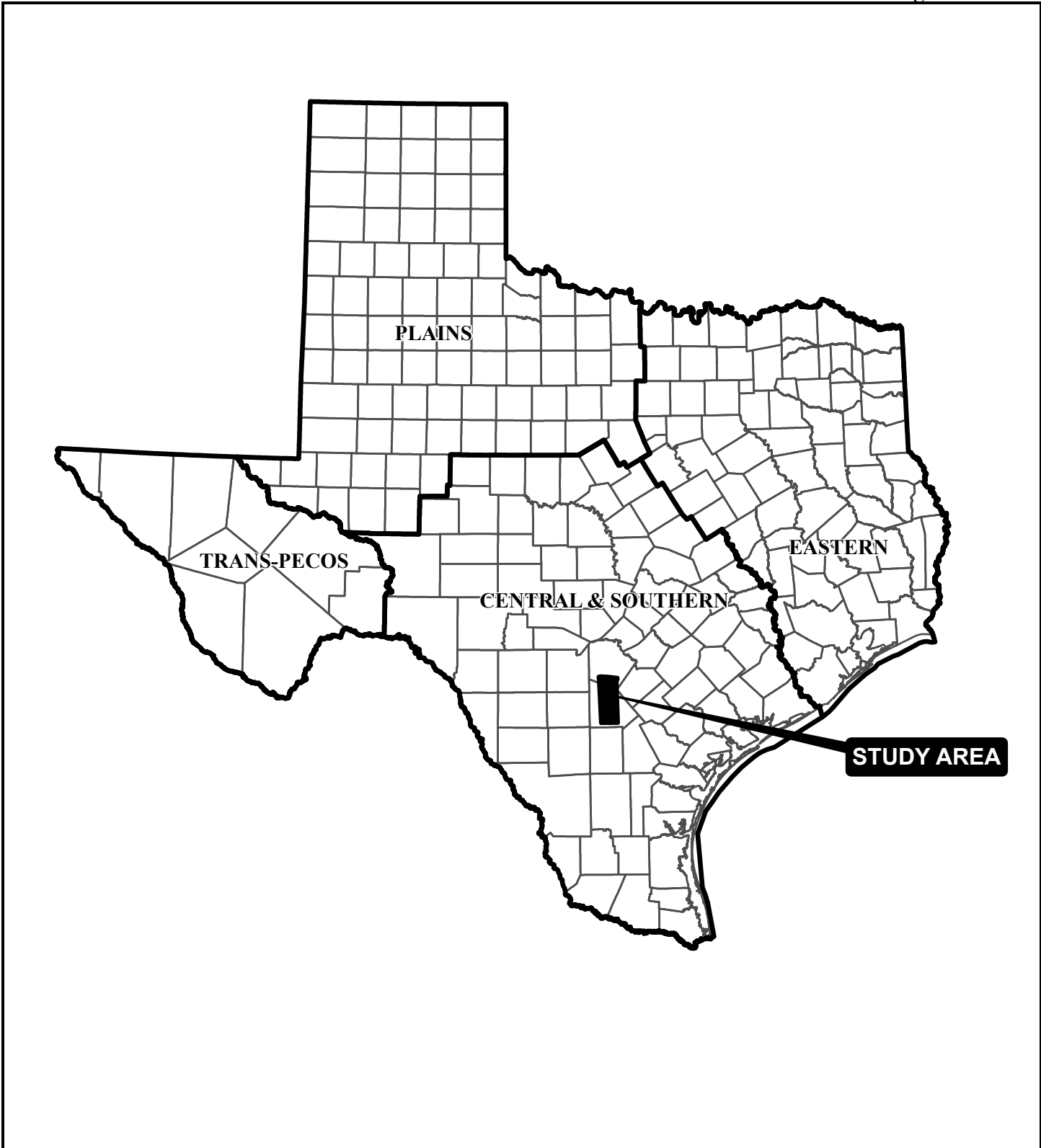
and near the study area is likely to reflect influence and shared traits from all three of the archeological regions, the following discussion focuses on the cultural chronology of South Texas, as presented by Hester (1995 and 2004) and others.

The prehistory of South Texas spans at least 11,500 years, and is divided into three broad periods: Paleoindian, Archaic, and Late Pre-contact. The Post-contact period begins with the arrival of Europeans to the region. These periods are discussed below, and dates for pre-contact periods are given as years before present (BP).

Paleoindian Period (ca. 11,500 to 8,000 BP)

The Paleoindian period is the earliest period of human occupation in North America. During this period, humans exploited now extinct giant mammals, such as ancient bison (*Bison antiquus*) and the Columbian mammoth (*Mammuthus columbi*). The Paleoindian period coincided with the end of the last major North American glaciations during the Late Pleistocene and with the beginning of the Holocene.

In South Texas, the Paleoindian period is represented by the fluted projectile points and specialized blade production (Hester 1995). Diagnostic point types such as Clovis, Plainview, and Angostura are attributed to this early period. The presence of large projectile points suggests that hunting large mammals was an important component of the subsistence strategy, although the collection of readily available plant foods probably also contributed to the diet (Collins 2002). The late Paleoindian period corresponds to a greater variety of point styles, including smaller side-notched points that may reflect a hunting strategy oriented toward smaller game animals (Collins 2002). The earliest occupation of the Richard Beene site (41BX831), a State Antiquities Landmark located within the study area, dates to the Late Paleoindian period.



**HOWARD ROAD TO SAN MIGUEL
345-KV TRANSMISSION LINE
PROJECT**

FIGURE 3-4

LOCATION OF THE STUDY AREA
IN RELATION TO THE
CULTURAL RESOURCE PLANNING
REGIONS OF TEXAS

Date: 8/7/2024

There are dozens of recorded archeological sites in South Texas that contain Paleoindian components (Bousman et al. 2004); however, Paleoindian tools are typically isolated, and their cultural context is poorly understood. There are few well persevered and documented Paleoindian sites in central Texas. These sites are usually deeply buried making them difficult to locate. However, the information available from this period in the region indicates an area where small mobile groups had access to springs across the landscape and easy access to chert stone to manufacture tools to process edible plants and hunt the available animals in the region (City of San Antonio Office of Historic Preservation [OHP] 2024a).

Archaic Period (8,800 to 1,250 BP)

The long-lasting Archaic period in South Texas is distinguished by changes in artifacts representing adaptation to the changing environment. The beginning of the Archaic period witnessed a shift to hunting smaller game and plant gathering; human population density gradually increased during this period. The Archaic period is subdivided into three sub-periods: Early, Middle, and Late.

Early Archaic (ca. 8,000 to 4,500 BP) archeological sites are rare in South Texas, and the settlement patterns and subsistence strategies of this period are poorly understood. As in central Texas, the transition from the late Paleoindian period to the Early Archaic is gradual and is generally characterized as a time when broad territorial hunting and gathering became more localized and artifact assemblages began to show greater diversity than during the late Paleoindian period (Collins 2004). In Bexar County, the Brackenridge Park site is considered a transition site having both Paleoindian and Early Archaic tool types. The Higgins site (41BX184) and the Panther Springs site (41BX228), both in Bexar County, also have evidence of early Archaic occupations.

Early Archaic people were likely organized into small hunting and gathering bands similar to their Paleoindian predecessors in their lifestyle and population density. Typical food resources probably consisted of deer, mussels, small game, fish, acorns, and roasted plant bulbs (Hester 1995; Collins 2004). Hester (1995) divides Early Archaic archeological components in South Texas into an “early corner notched” horizon and an “early basal-notched” horizon, reflecting a distinction seen in central Texas. Representative artifacts associated with the early corner-notched horizon include early expanding-stem (Bandy, Martindale, and Uvalde) dart points and the Guadalupe distally beveled tool (Terneny 2005). Bell and Andice varieties of dart points are associated with the early basal-notched horizon (Hester 2004; Terneny 2005).

The Middle Archaic (ca. 4,200 BP to 2,400 BP) has a distinct lithic technology from earlier periods. Projectile points from this period are distinguished by their triangular shape; Middle Archaic points, such as the Tortugas and Abasolo types, differ sharply from the stemmed points of the Early Archaic. This period also exhibits a large amount of distally-beveled gouges, which were probably used for woodworking (Hester 1995). The Middle

Archaic is marked by growing populations and increased, but still low, population density. During the Middle Archaic, open campsites along waterways were the norm. Subsistence during this period continued to be dominated by hunting large and small game (Hester 1995), although in central Texas, bison hunting is evident during the early portion of the Middle Archaic. Burned rock middens were prolific in central Texas during this time and in many instances appear to have been used for processing plants adapted to the drier climate such as sotol, a semi-succulent plant used for both food and fiber products (Collins 2004).

The Late Archaic Period (ca. 2,400 BP to 1,150 BP) saw a shift in projectile point types, including Shumla, Ensor, Frio, Marco, and Montell points. Ground stone tools primarily manos and metates, are more frequently encountered at Late Archaic sites than at older sites. The increased use of ground stone likely represents increased exploitation of mesquite, acacia bean, and other plants. Hester suggests this shift toward plant foods resulted in a further increase in population density (Hester 1995). Hester (2004:143) also suggests that the presence of large, stemmed bifaces and triangular bifaces made of Edwards chert across South Texas may indicate increased trade between south and central Texas during the Late Archaic. Burned rock middens continued to be a common site type in the earliest years of the Late Archaic in central Texas. As desert plants were replaced by plants adapted to a moister climate the number of burned rock middens in east-central Texas decreased but did not entirely disappear.

Late Prehistoric Period (1,150 to 350 BP)

Late Prehistoric period people in South Texas shared many cultural traits and patterns with populations in central Texas. The primary hallmarks of this period are the use of the bow and arrow and the introduction of pottery. The projectile points from this period are much smaller and lighter than the points from earlier periods. These point types include Fresno, Scallorn, Starr, Zavala, and Perdiz (Hester 1995). The ceramics of the Late Prehistoric Period, although rarely found in Rio Grande Valley sites, are typically bone-tempered. The olla, a large water jar, is the most common vessel form (Hester 1995). Late Prehistoric people of South Texas were likely extremely mobile hunters relying heavily on bison, as evidenced by the numerous bison kill sites and well-preserved faunal remains (Hester 1995). Human populations were larger and more stable in the Late Prehistoric than in earlier periods.

Late Prehistoric archeological sites are the most abundant of all three major prehistoric periods, and they exhibit evidence of increased population density and complexity. The bow and arrow might have greatly increased hunting productivity and decreased the emphasis on plant foods, although ground stone tools are still present during the Late Prehistoric Period.

Shortly before the arrival of Europeans to central Texas, native groups were living in small band-sized encampments and large, diffuse camps comprised of people with multiple tribal affiliations. Hunting focused on bison, but also included deer and antelope. Group mobility patterns were governed by the seasonal movements of the native animals and availability of resources, and later affected by the newly introduced horse. The presence of Caddoan ceramics at several central Texas sites indicates a long pattern of Hasinai Caddo interaction with groups indigenous to central Texas (Collins 2004).

South Texas trade connections to central Texas and Mesoamerica are evident during the Late Prehistoric period. Two closely related Late Prehistoric cultural complexes appear to be geographically restricted to the Lower Rio Grande Valley, with sites discovered in the United States and Mexico. MacNeish (1947) identifies shell disks, pierced shell disk beads, plugs made from columellae that are round in cross-section, rectangular conch shell pendants, mollusk shell scrapers, and Starr, Fresno, and Matamoros projectile points as artifacts common to both Barril and Brownsville cultural complexes. Pottery of Huastec origin from southern Tamaulipas also appears in occupation sites and burials associated with these two cultural complexes (Anderson 1932; MacNeish 1947; Mason 1935; Terneny 2005).

Post-Contact Period (ca. 350 to 50 BP)

As Europeans began to explore Mexico and South Texas in the sixteenth century, their goods were introduced to the native groups, some of which appear in contact-era artifact assemblages. Records made by early European explorers, such as Alvar Nunez Cabeza da Vaca, described the Native American people of South Texas as Coahuiltecan, based on their use of a common language (Salinas 1990). Foster (2008) includes the study area in a large ethnogeographic boundary extending from south of the Rio Grande to the Balcones Escarpment west of the San Antonio River, the Balcones Escarpment served as a natural boundary during the Post Contact Period between Plains Indians to the north, while the San Antonio River served as a natural boundary between South Texas and groups east of the river. Coastal groups north of Baffin Bay historically occupied a narrow strip along the coast (Foster 2008). DeVaca identified the names and locations of 16 tribes in South Texas after escaping from the Mariame near Matagorda Bay moving across the study area, ultimately crossing the Rio Grande near Falcon reservoir (Foster 2008). Spaniards described Natives in the area as hunters and gatherers that utilized the bow and arrow and rabbit sticks. Documented trade between these groups, Huastecan groups hundreds of miles to the south, Caddoan groups in east Texas, and groups in the Big Bend area indicated South Texas groups participated in broad geographic trade networks (Foster 2008).

Beginning in 1718 and continuing through the 1720s, Spanish occupation intensified as population increased following the construction of the presidio of San Antonio de Bexar and multiple missions (Handbook of Texas Online 2024). Olivares founded the Mission San Antonio de Valero on May 1st at its original location west of San

Pedro Springs. Days later, the presidio of San Antonio de B exar was founded near the mission by Mart n de Alcar n, governor of Coahuila y Texas (Jasinski 2024). Both the presidio and the mission were relocated to their latest locations in 1722 and 1724, respectively, with the presidio on the west bank of the San Antonio River directly across from the mission on the east bank. Additional missions were established as the population of the area steadily rose (Schoelwer 2024).

Development of the area continued to intensify as construction projects grew to support the population and the responsibilities of the newly established government. The San Fernando de B exar settlement was founded in 1731, the first civil government in Texas (de la Teja 2024). Families from northern Mexico established ranches in the area that would become Atascosa County by the middle of the 1700s (Peterson 2024). By 1773, San Fernando became the capital of Spanish Texas (de la Teja 2024).

San Fernando de B exar initially consisted of military personnel and civilians including Mexican frontiersman, resident families, and Native Americans living at the missions. Later, it evolved into a castas, or an organization of social hierarchy based on racial divisions. This society was typical in North American Spanish colonies and consisted of Europeans and European descendants, Native Americans, African descendants, and mixed-race groups (Jasinski 2024).

During the late eighteenth and early nineteenth centuries San Fernando suffered a hostile period. Surrounding Native American communities such as the Apache and Comanche put pressure on communication networks and the surrounding farmland, and there were military upheavals in the city as well (de la Teja 2024). In 1811, Captain Juan Bautista de las Casas assumed governorship of Texas in what was known as the Casas Revolt. The revolt was short-lived, however, and ended with the incumbent governor, Manuel Mar a de Salcedo re-instated (Caldwell 2024), and the city was recaptured in 1813 after the Battle of Medina south of modern -day San Antonio (Caldwell 2024; Moses and Nickels 2020). This tumultuous period eventually led to the re-organization of the provinces of Texas and Coahuila into one state governed out of Saltillo (de la Teja 2024). During the initial stages of the Texas Revolution, San Fernando de B exar was besieged and occupied by rebel forces. By 1837, it had been renamed San Antonio and was county seat of Bexar County (de la Teja 2024).

The impetus for the Texas Revolution began when several Mexican states rebelled against President Antonio Lopez de Santa Anna's reformation that replaced the constitution of 1824 with a new government. Coahuila y Tejas were among the rebelling states, and on February 23, 1836, the Mexican army under Santa Anna retaliated against the Texian rebels by laying siege to San Antonio. The resulting became known as the Battle of the Alamo. This rebellion ultimately ended on April 21, 1836, with the independence of Texas and the subsequent removal of Mexican forces from San Antonio (Barker and Pohl 2024).

After the Texas Revolution, most of the Mexican ranches in Atascosa County were broken up, but the first Anglo settlers did not arrive until the state began to grant land there to veterans in the 1840s. Extensive colonization in the area began with the granting of four leagues on the Atascosa River to José Antonio Navarro. The land had been originally deeded to him by the Mexican government in 1825 and was acknowledged by the state of Texas in 1853 (Peterson 2024).

Following the war for independence, San Antonio became the seat of Bexar County within the Republic of Texas, hostilities with Comanches persisted, such as the Council House Fight in 1840 (Schilz 2024), and San Antonio was seized twice by Mexico in 1842 (Jasinski 2024). Hostilities with Mexico only intensified after Texas was annexed by the US in 1845 and the Mexican-American War began in 1846. The US military established a headquarters in San Antonio in 1848 but was forced to surrender it to militia forces in 1861 when Texas seceded from the Union at the outset of the American Civil War (Jasinski 2024).

Nearby Helotes was settled in the 1850s by German and Mexican immigrants (Massey 2024). In 1860, Atascosa County had a population of 1,578, including 84 enslaved people. Cattle ranching and subsistence farming were the dominant occupations (Peterson 2024). By the 1890s, one third of San Antonio's population was German (Jordan 2024) and Atascosa County had grown to nearly 6,500 people (Peterson 2024).

After the Civil War, San Antonio became a prosperous hub supporting multiple industries and growing in population. Cattle trail drives were an integral part of the San Antonio economy, as well as the wool from the nearby hill country. In 1877, the Galveston, Harrisburg and San Antonio Railway reached San Antonio. A second railroad, the International-Great Northern, reached San Antonio in 1881. The railroads fueled local industries, and five additional railroads connected San Antonio to distant markets by 1900 (Jasinski 2024).

In Atascosa County, irrigation, first used effectively in Poteet in 1911, allowed for growing cash crops such as strawberries, peas, and watermelons. Cotton and cattle continued to drive the economy into the 1930s, when crashing prices and boll weevil infestations devastated the industry (Peterson 2024).

3.5.2 Literature and Records Review

On November 3, 2023, GIS shapefiles were acquired from TARL to identify and map the locations of recorded archeological resources within the study area. Descriptive data pertaining to archeological sites and surveys were obtained from the Texas Archeological Sites Atlas (TASA) in November 2023. The locations of, and information pertaining to, State Antiquities Landmarks (SALs), NRHP properties, Historic Texas Cemeteries, and OTHMs within the study area were obtained from the TASA (THC 2024a) and the THSA (THC 2024b). The TASA, THSA, and USGS topographic maps were reviewed to identify cemeteries within the study area. Texas

Department of Transportation's Historic Resources Aggregator database was reviewed to identify historic resources that are listed or determined eligible for listing on the NRHP within the study area (TxDOT 2024c). At the national level, the NRHP database (NPS 2024d) and NPS websites for National Historic Landmarks (NPS 2024b) and National Historic Trails (NPS 2024c) were reviewed. At the local level, the San Antonio OHP was reviewed for identify historic resources that are listed or determined eligible for listing on the NRHP (City of OHP 2024b).

The records search indicated that seven NRHP-listed properties, 299 archeological sites, 80 cemeteries, 53 OTHMs, three OHP properties, ten Historic Texas Cemeteries (HTCs), and three historic highways are documented within the study area. A total of 53 of the cultural resources within the study area have been determined eligible for listing on the NRHP, and 18 are designated SALs. The cultural resources within the study area are summarized below in Table 3-12. Due to the number of resources within the study area, NRHP-listed and eligible resources, as well as SALs, HTCs, and Recorded Texas Historic Landmarks within the study area are summarized below. Additional resources within 1,000 feet of the alternative routes are discussed in more detail in Section 4.5.3.

TABLE 3-12 RECORDED CULTURAL RESOURCES WITHIN THE STUDY AREA

COUNTY	ARCHEOLOGICAL SITES	STATE ANTIQUITIES LANDMARKS	NRHP-LISTED RESOURCES	NRHP-ELIGIBLE PROPERTIES	OTHMS	CEMETERIES	HTC
Atascosa	84	1	4	2	44	26	4
Bexar	215	17	4	51	9	54	6

Source: NPS 2024b, 2024c, 2024d, and 2024e; THC 2024a and 2024b; and TxDOT 2024c.

Seven NRHP-listed properties are mapped within the study area and listed on Table 3-13. This includes two individually listed properties, four National Register Historic Districts, and a National Historic Trail. The Lyons, Frederick, and Sallie House, Korus Farmstead and the Atascosa County Courthouse are individually listed NRHP resources in Atascosa County. The Herrera Ranch, Heermann Store, and Presnall-Watson Homestead National Register Historic Districts are in Bexar County, and portions of the El Camino Real de los Tejas National Historic Trail crosses the study area in both counties (NPS 2024b, 2024c, 2024d, and 2024e; THC 2024a and 2024b).

The Lyons, Frederick, and Sallie House was constructed from 1912 to 1913 and is an example of a modified L-shaped plan single-story frame house. Characteristics associated with an L-shaped plan style dwelling exemplified in the Lyons, Frederick, and Sallie House are a central pyramid-shaped roof with a radiating gable wing, and a large porch that wraps around one side of the house. The house is significant for its architectural design as well as its association with Fredrick Lyons, one of Pleasanton, Texas's first elected city councilman (NRHP 2000).

Designed by Henry T. Phelps, the Atascosa County Courthouse, completed in 1912, is a square building located in a distinctive circular town square. The building exhibits pyramid roofs, arcaded loggias-style covered walkways, and curvilinear parapets characteristics of the Mission Revival style, which became popular after the rediscovery of California missions. Despite several modern alterations, the structure retains its historical integrity and is significant for its architectural style and use as a government building (NRHP 1997). The Atascosa County Courthouse is also a designated SAL (TxDOT 2024c).

The Korus Farmstead consists of a main farmhouse and associated outbuildings within 112 acres of land historically associated with the farmstead that retains its integrity. The main house was built around 1908 and is a Queen Anne-style frame construction house on pier and beam foundations. A second dwelling, a dog-trot-style vertical log house, was built sometime between 1860 and 1870. Additional contributing elements include two cribs, two chicken coops, a garage, a cattle pen, a well, a windmill, a turkey house, a brooder, and a garden. The Korus Farmstead is significant for architecture but also for broad patterns of history, including agricultural, Polish settlement, and exploration (NRHP 1998).

The Herrera Ranch District consists of two jacales (houses) built between the 1830s and 1840s, two wooden structures, and a pavilion. The jacales were constructed with timber posts with hides and clay plaster or mud topped with a thatch roof. These structures would be whitewashed in lime and would last for extended periods of time when well-kept. Most of these structures within the District were destroyed during the Battle of the Alamo. The two wooden structures are both one-story with one being a one-room batten side gable house with a metal corrugated roof and the second an L-plan wooden framed building with a low-pitched front gable. The pavilion is an open-area wood structure. The Herrera Ranch is significant for its South Texas jacale architecture as well as association with Tejano/Hispanic agricultural practices in the area (NRHP 2008). Site 41BX672 is the archeological component of the Herrera Ranch and is mapped within the overall NRHP property (THC 2024b).

Contributing elements to the Heermann Store District include the Heermann Store, two sheds, and cotton gin ruins. The Heerman store is a one-story vernacular structure made of sandstone blocks with a basement and storefront parapet. Both sheds are one-story wooden frame structures with corrugated metal roofs, and the cotton gin ruins consist of one wall of a formal rectangular structure. The store was built around the 1890s, the sheds around the 1900s, and the cotton gin in 1885. Non-contributing elements within the district include a wooden canopy, a house, a shed, and a garage. The Heermann Store District is significant for architecture associated with early settlement in the area as well as an example of a vernacular commercial building (NRHP 2022).

The Presnall-Watson Homestead District is a ranch complex that was owned by two prominent families in the area (NRHP 2012). Nine contributing elements are recorded within the district, including the main house, two barns, a water trough and tank, a shed, the kitchen, and garage, and a stock pond. The main house is a two-story vernacular “double” I-house constructed of stone. The Presnall-Watson Homestead NRHP district contains

archeological evidence of human occupation going as far back as the late Paleoindian period and spanning approximately 10,000 years of human history (NRHP 2012).

Archeological sites determined eligible for the NRHP within the Presnall-Watson Homestead NRHP-listed boundary include 41BX537, 41BX538, 41BX539, 41BX540, 41BX831, and 41BX833. All but 41BX537 are also designated SALs (see Table 3-13). Sites 41BX539 and 41BX831 are pre-contact in age, site 41BX538 is post-contact, and sites 41BX537, 41BX540, and 41BX833 have both a pre- post-contact components. Site 41BX539 contains burned rock, stone tools including an early triangular dart point, and debitage.

The Richard Beene site (41BX831), has evidence of occupation from the late Paleoindian through late Archaic periods, including a variety of cooking features (hearths, basins, etc.), burned rock, debitage, woodworking tools, and mussel shell fragments. The historic component of the site includes house ruins for tenants or field-hands, out building, and dumping area (THC 2024b; NRHP 2012). Site 41BX538 is the archeological component of the Presnall-Watson farmstead (THC 2024b). Site 41BX833, is a pre-contact campsite with stone tools, debitage and mussel shell. The post-contact component consists of a chimney, artifact scatter of ceramics and sandstone feature. This sandstone feature may be evidence of graves as suggested by oral history that enslaved people may have been buried at the location. As of a revisit in 2008, no cultural material was observed (THC 2024b).

Site 41BX537 is a pre-contact campsite with burned rock, debitage, animal bone fragments and a post-contact ceramic fragment. Site 41BX540 is a pre-contact campsite with a burned rock midden and lithic scatter and a farmstead with artifact scatter (THC 2024b). Site 41BX830, located within the NRHP-boundary, is a pre-contact lithic scatter and a post-contact farmstead and ranch complex. Site 41BX830 has not been formally assessed for listing on the NRHP (THC 2024b).

El Camino Real De Los Tejas National Historic Trail, as mapped by the NPS, crosses through both Atascosa and Bexar Counties within the study area. El Camino Real de Los Tejas was one of the roads connecting regions of the Spanish territories to Mexico City. This road provided an overland route to the Red River Valley in Louisiana. Consisting of established Indian trails and trade routes, El Camino Real de Los Tejas continued to be utilized by the Spanish during their conquests, by Mexico, the Republic of Texas, and eventually the United States (NPS 2024b, 2024c, 2024d, and 2024e). Archeological site 41BX2468, a swale segment of the El Camino de los Tejas Trail which has been determined eligible for listing on the NRHP is within the study area (THC 2024b).

TABLE 3-13 RECORDED NRHP-LISTED RESOURCES WITHIN THE STUDY AREA

NRIS REFERENCE NUMBER	TYPE	RESOURCE NAME	COUNTY
01000061	Individual	Lyons, Frederick and Sallie, House	Atascosa
97001598	Individual	Atascosa County Courthouse	Atascosa
98000876	District	Korus Farmstead	Atascosa
10000737	District	Herrera Ranch (Herrera, Blas Maria and Maria Antonia Ruiz Ranch)	Bexar
100008551	District	Heermann Store	Bexar
2012000192	District	Presnall-Watson Homestead	Bexar
-	Trail	El Camino Real de los Tejas National Historic Trail	Atascosa/Bexar

Source: NPS 2024b, 2024c, and 2024d.

According to the THC (2024b), there are 183 pre-contact archeological sites, 60 post-contact period sites, and 42 sites with both pre-contact and post-contact components in the study area. No descriptive data is available for 14 of the sites. Pre-contact occupation of the study area is documented from the Paleoindian Period through the post-contact era. Most pre-contact sites are surface scatters of debitage or campsites with debitage, burned rock, and, in some cases, hearths, shell, and bone. Pre-contact sites include trash dump sites, farmsteads, and ranch complexes with multiple structures, cemeteries, and scatters of post-contact artifacts. Of the sites located within the study area, a total of 24 have been determined eligible for listing on the NRHP, and 17 are eligible for listing and designated SALs (see Table 3-14). Of the eligible or SAL sites, 16 are pre-contact, nine are post-contact, and 16 have both a pre- and post-contact component. Due to the number of archeological resources within the study area only the NRHP determined eligible sites area presented in the table below.

TABLE 3-14 RECORDED NRHP-ELIGIBLE ARCHEOLOGICAL SITES WITHIN THE STUDY AREA

TRINOMIAL	SHPO ELIGIBILITY DETERMINATION	PERIOD	DESCRIPTION	COUNTY	COMMENTS
41BX274	Eligible/SAL	pre-/post-contact	Perez Rancho	Bexar	---
41BX277	Eligible/SAL	pre-/post-contact	Perez/Walsh Cemetery, Rancho de Perez	Bexar	---
41BX346	Eligible/Ineligible*	pre-/post-contact	pre-contact campsite with burned rock and debitage; post-contact scatter (no artifacts were specified)	Bexar	---
41BX347	Eligible	pre-contact	lithic scatter	Bexar	---
41BX348	Eligible	pre-contact	lithic scatter	Bexar	---
41BX349	Eligible/Ineligible*	pre-contact	no descriptive site data was available on the TASA	Bexar	---
41BX350	Eligible	pre-contact	lithic scatter	Bexar	---
41BX519	Eligible	pre-/post-contact	pre-contact lithic scatter; post-contact scatter of structural debris	Bexar	---
41BX531	Eligible/SAL	pre-/post-contact	campsite with burned rock, petrified wood biface, mussel shell, and debitage	Bexar	---
41BX532	SAL	pre-contact	lithic scatter	Bexar	---

TABLE 3-14 RECORDED NRHP-ELIGIBLE ARCHEOLOGICAL SITES WITHIN THE STUDY AREA

TRINOMIAL	SHPO ELIGIBILITY DETERMINATION	PERIOD	DESCRIPTION	COUNTY	COMMENTS
41BX533	Eligible (pre-contact component)	pre-/post-contact	pre-contact campsite with burned rock, debitage, and mussel shell fragments; post-contact ceramic fragments	Bexar	---
41BX537	Eligible	pre-contact	campsite with burned rock, debitage, and bone fragments Perdiz and Ensor projectile points, and biface	Bexar	Within Presnall-Watson NRHP District
41BX538	Eligible/SAL	pre-/post-contact	Presnall/Watson Farmstead	Bexar	Within Presnall-Watson NRHP District
41BX539	Eligible/SAL	pre-contact	campsite with burned rock, stone tools, Early triangular dart point, and debitage	Bexar	Within Presnall-Watson NRHP District
41BX540	SAL	pre-/post-contact	pre-contact campsite with burned rock midden and lithic scatter; farmstead and associated artifact scatter	Bexar	---
41BX545	Eligible	pre-contact	campsite with burned rock and debitage	Bexar	---
41BX546	Eligible	pre-/post-contact	pre-contact campsite with burned rock, debitage, and a mussel shell; post-contact whiteware sherd	Bexar	---
41BX628	Eligible/SAL	post-contact	midden and surface features associated with the town of Earle, Texas	Bexar	---
41BX652	Eligible/SAL	pre-/post-contact	pre-campsite with burned rock clusters, scattered burned rock, Langtry projectile point untyped dart point; post-contact olive tree	Bexar	---
41BX653	Eligible/SAL	pre-contact	campsite with burned rock, burned rock cluster, debitage, stone tools, Montell projectile point	Bexar	---
41BX662	Eligible/SAL	post-contact	remains of the Perez/Walsh farmstead kiln with a scatter of burned clay and brick fragments	Bexar	---
41BX669	SAL	pre-/post-contact	pre-contact two hearths and lithic scatter; post-contact structural ruins, refuse pit, cistern, and artifact scatter	Bexar	---
41BX672	Eligible	post-contact	Blas Herrera/Jose Maria Herrera Homesite	Bexar	---
41BX682	Eligible/SAL	post-contact	no descriptive site data was available on the TASA	Bexar	---
41BX831	Eligible/SAL	pre-/post-contact	campsite with evidence of occupation from the late Paleoindian through late Archaic periods, including a variety of cooking features (hearths, basins, etc.), burned rock, debitage, woodworking tools, and mussel shell fragments; post-contact late twentieth-century ruins and dump	Bexar	Within Presnall-Watson NRHP District
41BX832	Eligible/SAL	pre-contact	two flakes eroding out of a paleosol	Bexar	---

TABLE 3-14 RECORDED NRHP-ELIGIBLE ARCHEOLOGICAL SITES WITHIN THE STUDY AREA

TRINOMIAL	SHPO ELIGIBILITY DETERMINATION	PERIOD	DESCRIPTION	COUNTY	COMMENTS
41BX833	Eligible/SAL	pre-/post-contact	pre-contact campsite with stone tools debitage, and mussel shell; post-contact chimney, scatter of ceramics, and a sandstone features that may indicate graves	Bexar	Within Presnall-Watson NRHP District
41BX837	Eligible	pre-/post-contact	pre-contact campsite with burned rock, shell, debitage; post-contact cemetery and artifact scatter	Bexar	---
41BX857	Eligible	post-contact	remains of a bridge	Bexar	---
41BX865	Eligible (post-contact)/Undetermined (pre-contact)	pre-/post-contact	pre-contact campsite with burned rock, ceramics, stone tools, and debitage; post-contact house with artifact scatter	Bexar	---
41BX988	Eligible/SAL	post-contact	Laborer's House (Perez Ranch) (41BX988)	Bexar	---
41BX1239	Eligible	pre-contact	mammoth remains	Bexar	---
41BX1241	Eligible	pre-contact	no descriptive site data was available on the TASA	Bexar	---
41BX1577	Eligible	pre-contact	campsite with burned rocks, a ceramic sherd, stone tools, and debitage	Bexar	---
41BX1578	Eligible	pre-/post-contact	campsite with a burned rock, ceramic sherd, a single piece of debitage, post-contact ceramic fragments, and a fragment of glass	Bexar	---
41BX1579	Eligible	pre-contact	campsite with burned rock and debitage	Bexar	---
41BX1580	Eligible	pre-contact	campsite with burned rock, stone tools, and debitage	Bexar	---
41BX1623	Eligible	pre-contact	campsite with burned rock and debitage	Bexar	---
41BX2184	Eligible	post-contact	Swale of the Rancho de Costales trail	Bexar	---
41BX2468	Eligible	post-contact	a swale segment of the El Camino de los Tejas Trail	Bexar	---
41BX2495	Eligible	post-contact	early 19th-century skirmish location related to the Battle of Medina	Bexar	---

Source: THC 2024a, 2024b.

Notes: asterisk (*) indicates assessment of portion of site

Eighty cemeteries are recorded in the study area, including nine that are also recorded archeological sites. Ten of the cemeteries are designated HTC's, and one cemetery (Perez/Walsh) has been determined eligible by the Texas Department of Transportation (see Table 3-15) (TxDOT 2024; THC 2024a and 2024b). Due to the number of cemeteries within the study area only the designated HTC's and recorded archeological sites that are also cemeteries are presented in the table below.

TABLE 3-15 HISTORIC TEXAS CEMETERIES, DETERMINED ELIGIBLE CEMETERIES AND RECORDED ARCHEOLOGICAL SITES WITH BURIALS IDENTIFIED WITHIN THE STUDY AREA

THC CEMETERY NUMBER	NAME	DESIGNATIONS	COUNTY
AT-C001	Pleasanton City #1	HTC	Atascosa
AT-C010	St. Matthew Catholic	HTC	Atascosa
AT-C016	San Ysidro	HTC	Atascosa
AT-C023	Brite	HTC	Atascosa
AT-C056	Jourdanton City	HTC	Atascosa
AT-C028	Madre Dolorosa	HTC	Atascosa
AT-C030	Willborn	HTC	Atascosa
AT-C031	Rutledge (aka Poteet)	HTC	Atascosa
BX-C022	Gonzales	HTC	Bexar
BX-C004	Oak Island Cemetery (41BX521)	HTC	Bexar
BX-C124	Perez/Walsh Cemetery (41BX277)	Determined Eligible by TxDOT	Bexar
-	Historic cemetery (41BX529)	-	Bexar
-	historic church site (41BX674)	-	Bexar
-	post-contact cemetery (41BX1307)	-	Bexar
-	Santissima Trinidad Cemetery (41BX667)	-	Bexar
-	Thompson Cemetery (41BX675)	-	Bexar
-	41BX833	-	Bexar
-	41BX837	-	Bexar

Source: THC 2024a; THC 2024b

Fifty-three OTHMs are mapped in the study area. Two of the markers, The Battle of the Medina (Marker Number 12646) and Atascosa County (Marker Number 223), are 1936 Centennial Markers and are eligible for listing on the NRHP; none are Recorded Texas Historic Landmarks (THC 2024a).

3.5.3 Previous Archeological Investigations

Over 145 archeological investigations are mapped in the study area (THC 2024b). The bulk of these surveys are located in the northern portions of the study area in Bexar County and were undertaken beginning in the late 1970s and early 1980s. Large areas covering an area of over 13,000 acres within the study area were surveyed in advance of the Applewhite Reservoir Project, Medina River Park, the Toyota Motor Manufacturing Plant, and survey of the Medina Battlefield. The majority of the SALs recorded in the study area were recorded during these surveys (THC 2024b). During the Public meetings, it was brought to POWER's attention that recent research and surveys had identified sites related to the Battle of Medina. Three areas of concern were provided to POWER and were taken into consideration during the development of routes, high probability areas (HPAs), and assessment of potential impacts to cultural resources for the alternative routes (see Section 4.5.3).

3.5.4 High Probability Areas

Review of the previously recorded cultural resource sites data indicates that the entire study area has not been examined during previous archeological and historical investigations. Consequently, the records review indicates that additional cultural resource sites are likely located within the study area. To further assess and avoid potential impacts to cultural resources, HPAs for prehistoric archeological sites were defined during the route analysis process. HPAs were designated based on a review of the site and survey data within the study area, as well as soils and geologic data and topographic variables and information provided during the public meetings. Native American subsistence was dependent on proximity to natural sources of water, such as rivers, creeks, and smaller streams, and sources of raw resources such as chert outcroppings.

Historic resources are also likely to be found near water sources. However, they will also be in close proximity to primary and secondary transportation routes (e.g., trails, roads, and railroads) which provided access to the sites. Buildings and cemeteries are likely to be located within or near historic communities. Locations and patterns of distribution for historic-period sites are not readily predictable or quantifiable, and the route analysis process discussed in Section 4.0 considers only recorded sites listed with official state and federal agencies and HPAs developed for prehistoric resources within the study area. Review of the historic topographical USGS maps show numerous structures within the study area along roads.

4.0 ENVIRONMENTAL IMPACTS OF THE ALTERNATIVE ROUTES

Potential impacts of the Project that could occur from, and are unique to, the construction and operation of a transmission line are discussed separately in this section of the EA. Evaluation of the potential impacts of the alternative routes identified in Section 2.0 was conducted by tabulating the data for each of the 46 evaluation criteria in Table 2-2 for each alternative routing segment and each primary alternative route. The data tabulation for land use and environmental criteria for each alternative route are presented in Table 4-1 and for each segment in Table 4-2.

4.1 Impacts on Natural Resources/Environmental Integrity

4.1.1 Impacts on Physiography and Geology

Construction of the proposed transmission line is expected to have negligible effects on physiographic features, geologic features and/or natural resources of the area. Erection of the pole structures proposed for the Project would require the excavation and/or minor disturbance of small quantities of near-surface materials but should have no measurable impacts on the geologic resources along the alternative routes.

Although the study area is outside of known karst formation locations, a site-specific karst survey may be required for the approved route to comply with USFWS survey requirements related to Endangered Karst Invertebrates in Central Texas. Surveys for karst features would follow USFWS guidelines for conducting karst features and would include a review of available existing information on regional caves, soils, historical land use practices, topography, and geology of the Project area and vicinity. Field surveys would include a pedestrian survey to identify karst features, that includes a description and assessment of observed features. The scope of this survey would not include an evaluation of the structural development or subgrade extent of the biological content (i.e., presence/absence of endangered cave invertebrate species) of potential karst features. Surface karst features may indicate the potential presence of suitable habitat for federally listed, endangered cave invertebrates, a USFWS permitted biologist holding a 10(a)(1)(A) permit for karst wildlife would be required to further investigate a feature to determine the presence of suitable habitat for listed species.

This page left blank intentionally.

Table 4-1
Land Use and Environmental Data For Route Evaluation
Howard Road to San Miguel

Evaluation Criteria													
Land Use	Route A	Route B	Route C	Route D	Route E	Route F	Route G	Route H	Route I	Route J	Route K	Route L	
1 Length of alternative route	47.77	56.67	50.71	55.95	55.81	53.42	52.23	50.05	50.81	58.92	49.78	49.02	
2 Number of habitable structures ¹ within 500 feet of ROW centerline	130	150	122	144	144	153	161	170	102	133	84	88	
3 Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0	0	0	
4 Length of ROW parallel and adjacent to existing transmission line ROW	1.67	0.36	1.78	0.48	5.97	0.11	4.63	1.78	2.27	1.36	11.23	9.19	
5 Length of ROW parallel and adjacent to other existing ROW (roadways)	2.51	6.22	2.43	6.56	6.56	4.75	5.12	2.76	4.67	12.21	0.60	2.47	
6 Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	17.29	18.90	15.68	19.34	16.31	18.12	16.98	18.36	15.67	17.82	12.30	16.54	
7 Sum of evaluation criteria 3, 4, 5, and 6	21.48	25.48	19.89	26.38	28.83	22.99	26.74	22.90	22.60	31.39	24.13	28.20	
8 Percent of evaluation criteria 3, 4, 5, and 6	45%	45%	39%	47%	52%	43%	51%	46%	44%	53%	48%	58%	
9 Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0	2.64	2.64	
10 Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	1	0	3	2	2	2	2	3	3	2	0	1	
11 Length of ROW across cropland	6.48	6.11	4.18	4.15	4.19	3.67	3.43	5.66	4.51	4.80	3.19	3.30	
12 Length of ROW across pasture/rangeland	14.70	23.15	16.76	21.80	22.31	21.36	20.03	16.21	19.73	23.82	21.70	17.13	
13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0.60	0.09	0.60	0.09	0.09	0.09	0.09	0.64	0.57	0.09	0.25	0.63	
14 Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0	0	0	
15 Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0	0	0	
16 Length of ROW parallel and adjacent to pipelines ⁴	0	0.41	0	0.28	0.28	0	0	0	0	0.39	0	0	
17 Number of pipeline crossings ⁴	9	10	9	9	11	9	9	9	10	8	7	9	
18 Number of transmission line crossings	5	6	5	6	6	6	6	7	7	6	4	5	
19 Number of US and state highway crossings	2	3	2	3	3	3	2	2	2	3	7	2	
20 Number of FM or RM road crossings	5	3	5	3	3	5	4	5	5	3	3	5	
21 Number of FAA registered public/military airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	1	0	1	0	0	0	1	1	1	0	1	1	
22 Number of FAA registered public/military airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0	
23 Number of private airstrips within 10,000 feet of the ROW centerline	2	0	1	0	0	0	0	1	2	0	1	2	
24 Number of heliports within 5,000 feet of the ROW centerline	1	0	1	0	0	0	1	1	1	0	0	1	
25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	1	0	1	0	0	0	0	1	1	0	1	1	
26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	4	2	4	1	2	1	2	4	3	2	2	4	
27 Number of identifiable existing water wells within 200 feet of the ROW centerline	6	0	6	0	0	3	2	6	4	0	7	8	
28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	19	29	40	40	37	39	40	40	20	43	10	14	
Aesthetics													
29 Estimated length of ROW within foreground visual zone ⁶ of US and state highways	5.85	6.58	7.38	8.06	8.05	8.05	7.98	7.39	7.77	14.84	10.66	2.36	
30 Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	9.29	6.14	9.29	5.92	3.18	5.72	5.19	9.29	6.06	4.40	4.11	5.71	
31 Estimated length of ROW within foreground visual zone ^{6/7} of parks/recreational areas ³	0.39	0.39	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	2.77	2.21	
Ecology													
32 Length of ROW across upland woodlands/brushlands	18.96	19.82	21.14	22.43	22.84	21.06	20.38	19.07	18.92	21.74	17.94	22.65	
33 Length of ROW across bottomland/riparian woodlands	4.65	3.97	6.45	4.69	3.93	4.80	5.78	6.01	4.84	5.22	4.48	4.09	
34 Length of ROW across NWI mapped wetlands	0	0.02	0	0.02	0.02	0.02	0.02	0	0	0.02	0	0	
35 Length of ROW across know critical habitat of federally-listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0	0	0	
36 Length of ROW across open water (lakes, ponds)	0.15	0.20	0.09	0.15	0.08	0.05	0.10	0.11	0.17	0.17	0.07	0.13	
37 Number of stream and river crossings	59	69	74	68	55	54	63	70	72	68	59	59	
38 Length of ROW parallel (within 100 feet) to streams or rivers	1.55	2.05	1.99	1.92	1.16	1.05	1.30	1.75	1.89	1.45	1.20	1.10	
39 Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0	0	0	
40 Length of ROW across FEMA mapped 100-year floodplains	5.77	6.27	7.93	5.50	5.29	6.66	6.60	7.74	7.25	6.54	7.58	5.85	
Cultural Resources													
41 Number of cemeteries within 1,000 feet of the ROW centerline	5	1	4	1	1	1	2	4	3	0	4	3	
42 Number of recorded cultural resource sites crossed by ROW	3	5	4	2	2	2	2	2	2	5	1	3	
43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	14	16	11	11	12	12	11	11	13	16	10	9	
44 Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0	1	1	
45 Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	1	1	3	3	3	3	3	3	3	3	1	1	
46 Length of ROW across areas of high archeological site potential	34.51	40.08	38.32	39.82	39.47	36.15	38.07	39.10	36.39	40.58	33.45	32.58	

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries criteria.

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria.

All length measurements are shown in miles unless noted otherwise.

Table 4-1
Land Use and Environmental Data For Route Evaluation
Howard Road to San Miguel

Evaluation Criteria		Route M	Route N	Route O	Route P	Route Q	Route R	Route S	Route T	Route U	Route V	Route W	Route X
1	Length of alternative route	46.99	47.47	47.60	50.48	48.23	45.32	49.05	47.90	49.15	50.47	49.44	50.85
2	Number of habitable structures ¹ within 500 feet of ROW centerline	77	78	76	77	73	81	75	68	50	41	41	40
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	9.19	9.19	4.47	4.47	4.47	4.47	4.72	5.98	10.21	7.14	7.14	7.14
5	Length of ROW parallel and adjacent to other existing ROW (roadways)	1.58	1.58	4.95	6.02	2.85	2.23	2.06	2.77	2.67	6.03	4.81	4.52
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	15.81	14.64	12.07	12.33	14.34	14.64	12.44	10.23	14.85	12.98	14.72	13.84
7	Sum of evaluation criteria 3, 4, 5, and 6	26.59	25.41	21.49	22.82	21.66	21.33	19.23	18.97	27.74	26.14	26.66	25.49
8	Percent of evaluation criteria 3, 4, 5, and 6	57%	54%	45%	45%	45%	47%	39%	40%	56%	52%	54%	50%
9	Length of ROW across parks/recreational areas ³	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	1	1	1	1	1	1	0	0	1	1	1	0
11	Length of ROW across cropland	3.56	3.56	3.89	4.18	4.18	3.89	4.21	3.60	2.62	4.14	3.79	3.79
12	Length of ROW across pasture/rangeland	19.14	17.71	15.92	16.40	16.28	14.88	18.61	20.62	19.75	21.04	19.67	20.61
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0.63	0.63	0.60	0.60	0.60	0.60	0.21	0.18	0.25	0.25	0.25	0.25
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0.11	0.11	0	0	0	0	0.26	2.01	2.01	1.75
17	Number of pipeline crossings ⁴	9	9	8	11	15	9	7	7	10	10	12	11
18	Number of transmission line crossings	5	5	3	3	3	3	4	4	4	4	4	4
19	Number of US and state highway crossings	2	2	4	4	2	2	5	5	4	4	4	5
20	Number of FM or RM road crossings	5	5	4	5	5	5	5	3	3	4	4	4
21	Number of FAA registered public/military airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	1	1	1	1	1	1	1	1	1	1	1	1
22	Number of FAA registered public/military airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	2	2	2	2	2	2	1	1	1	1	1	1
24	Number of heliports within 5,000 feet of the ROW centerline	1	1	1	1	1	1	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	1	1	1	1	1	1	1	1	1	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	4	4	5	5	5	5	5	3	2	2	2	3
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	8	8	7	7	7	7	8	6	7	6	6	6
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	11	11	11	14	15	11	9	9	13	11	15	15
Aesthetics													
29	Estimated length of ROW within foreground visual zone ⁶ of US and state highways	2.36	2.36	10.58	7.25	2.36	2.36	6.67	6.67	8.79	11.92	11.92	11.75
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	5.71	5.71	10.75	8.95	8.95	9.29	10.54	4.81	4.11	4.63	4.63	4.63
31	Estimated length of ROW within foreground visual zone ^{6/7} of parks/recreational areas ³	2.21	2.21	2.21	2.21	2.21	2.21	2.77	2.77	3.85	4.06	4.06	2.98
Ecology													
32	Length of ROW across upland woodlands/brushlands	18.10	20.00	19.25	21.94	19.96	19.39	18.66	17.23	19.64	19.96	19.95	20.45
33	Length of ROW across bottomland/riparian woodlands	3.64	3.60	5.13	5.31	5.23	4.59	5.36	4.29	4.81	2.98	3.69	3.64
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across known critical habitat of federally-listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0.13	0.12	0.17	0.09	0.09	0.09	0.01	0.04	0.01	0.02	0.02	0.02
37	Number of stream and river crossings	58	57	68	66	68	57	63	60	57	47	52	56
38	Length of ROW parallel (within 100 feet) to streams or rivers	1.10	1.39	2.27	1.65	1.96	1.55	1.57	1.40	1.22	0.98	1.21	1.14
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplains	7.37	7.48	7.73	7.83	7.69	7.36	9.94	9.55	7.20	4.05	4.71	5.34
Cultural Resources													
41	Number of cemeteries within 1,000 feet of the ROW centerline	4	4	6	7	7	6	6	4	3	4	4	4
42	Number of recorded cultural resource sites crossed by ROW	0	1	0	1	1	0	1	1	1	2	2	2
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	7	7	8	10	9	7	9	9	9	9	9	9
44	Number of resources determined eligible for or NRHP properties crossed by ROW	1	1	1	1	1	1	1	1	1	1	1	1
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	1	1	1	1	1	1	1	1	1	1	1	1
46	Length of ROW across areas of high archeological site potential	31.37	30.65	35.96	35.95	33.58	32.61	33.79	33.10	30.67	30.86	29.42	31.39

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries criteria.

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria.

All length measurements are shown in miles unless noted otherwise.

Table 4-1
Land Use and Environmental Data For Route Evaluation
Howard Road to San Miguel

Evaluation Criteria

Land Use	Route Y	Route Z	Route AA	Route AB	Route AC	Route AD	Route AE	Route AF	Route AG	Route AH
1 Length of alternative route	48.87	49.05	49.34	49.88	48.35	48.64	51.03	50.66	50.64	56.19
2 Number of habitable structures ¹ within 500 feet of ROW centerline	40	50	41	62	53	44	158	179	176	137
3 Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4 Length of ROW parallel and adjacent to existing transmission line ROW	7.14	10.21	7.14	4.95	5.98	2.90	0.49	6.89	0.49	5.86
5 Length of ROW parallel and adjacent to other existing ROW (roadways)	2.73	0.60	2.73	4.24	2.55	4.69	9.32	5.47	10.43	6.31
6 Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	12.09	11.05	10.92	14.60	10.35	10.22	11.13	15.84	12.79	17.99
7 Sum of evaluation criteria 3, 4, 5, and 6	21.96	21.86	20.79	23.80	18.88	17.80	20.93	28.19	23.71	30.16
8 Percent of evaluation criteria 3, 4, 5, and 6	45%	45%	42%	48%	39%	37%	41%	56%	47%	54%
9 Length of ROW across parks/recreational areas ³	2.64	2.64	2.64	2.64	2.64	2.64	4.54	4.54	4.54	0
10 Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	1	0	0	0	1	0	0
11 Length of ROW across cropland	4.14	2.97	4.14	3.96	3.33	4.50	3.81	3.40	3.42	5.49
12 Length of ROW across pasture/rangeland	20.95	19.61	19.53	19.40	20.10	20.02	22.12	16.65	18.22	23.35
13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0.25	0.25	0.25	0.57	0.18	0.18	0.00	0.63	0.00	0.09
14 Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15 Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	1.58	1.58	1.58
16 Length of ROW parallel and adjacent to pipelines ⁴	1.75	0	1.75	0	0	1.75	1.63	0	1.63	0.28
17 Number of pipeline crossings ⁴	9	7	9	10	7	9	8	9	7	11
18 Number of transmission line crossings	4	4	4	5	4	4	4	5	4	6
19 Number of US and state highway crossings	5	5	5	2	5	5	5	4	5	3
20 Number of FM or RM road crossings	4	3	4	5	3	4	5	5	5	3
21 Number of FAA registered public/military airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	1	1	1	1	1	1	1	1	1	0
22 Number of FAA registered public/military airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23 Number of private airstrips within 10,000 feet of the ROW centerline	1	1	1	2	1	1	1	2	1	0
24 Number of heliports within 5,000 feet of the ROW centerline	0	0	0	1	0	0	0	1	0	0
25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	1	0	1	1	0	0	1	0	0
26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	3	3	3	4	3	3	10	5	5	2
27 Number of identifiable existing water wells within 200 feet of the ROW centerline	6	7	6	5	6	5	3	6	2	0
28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	11	9	11	15	9	11	8	7	7	32
Aesthetics										
29 Estimated length of ROW within foreground visual zone ⁶ of US and state highways	11.75	8.62	11.75	4.31	8.62	11.75	13.81	4.70	13.74	3.49
30 Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	4.63	4.11	4.63	6.06	4.81	5.33	6.15	5.74	6.15	4.15
31 Estimated length of ROW within foreground visual zone ^{6/7} of parks/recreational areas ³	2.98	2.77	2.98	2.21	2.77	2.98	4.89	4.89	4.89	1.01
Ecology										
32 Length of ROW across upland woodlands/brushlands	18.51	20.10	20.41	19.75	18.27	18.58	18.58	22.81	21.88	21.05
33 Length of ROW across bottomland/riparian woodlands	2.93	4.02	2.90	4.02	4.29	3.17	4.23	5.86	5.50	3.63
34 Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0.02
35 Length of ROW across know critical habitat of federally-listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36 Length of ROW across open water (lakes, ponds)	0.02	0	0.01	0.09	0.03	0.04	0.02	0.11	0.00	0.08
37 Number of stream and river crossings	51	55	50	69	60	55	61	73	73	52
38 Length of ROW parallel (within 100 feet) to streams or rivers	0.91	1.21	1.20	1.89	1.40	1.39	1.78	2.56	2.80	1.15
39 Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40 Length of ROW across FEMA mapped 100-year floodplains	4.68	7.28	4.79	6.46	7.70	5.21	5.13	6.80	5.95	4.00
Cultural Resources										
41 Number of cemeteries within 1,000 feet of the ROW centerline	4	3	4	4	3	4	4	3	5	0
42 Number of recorded cultural resource sites crossed by ROW	2	2	3	1	1	2	3	2	3	4
43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	9	9	9	9	9	9	16	14	16	13
44 Number of resources determined eligible for or NRHP properties crossed by ROW	1	1	1	1	1	1	3	3	3	0
45 Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	1	1	1	1	1	1	1	1	1	1
46 Length of ROW across areas of high archeological site potential	30.28	30.82	29.56	34.53	33.30	32.04	32.82	35.31	35.94	37.55

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries criteria.

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria.

All length measurements are shown in miles unless noted otherwise.

This page left blank intentionally.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria											
Land Use	1	2	3	4	5	6	7	8	9	10	11
1 Length of alternative route (miles)	1.37	2.74	0.49	3.86	2.02	2.31	4.58	0.42	1.08	0.80	1.62
2 Number of habitable structures ¹ within 500 feet of the route centerline	21	10	0	10	12	6	7	5	5	3	9
3 Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0	0
4 Length of ROW parallel and adjacent to existing transmission line ROW	0	0.11	0.49	0	0	2.31	0	0	0.36	0	0
5 Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0.42	0	0	0.08	0	2.12	0.42	0	0	0
6 Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0	0.21	0	2.65	1.67	0	0.20	0	0.55	0.78	1.62
7 Sum of evaluation criteria 3, 4, 5, and 6	0.00	0.74	0.49	2.65	1.76	2.31	2.32	0.42	0.91	0.78	1.62
8 Percent of evaluation criteria 3, 4, 5, and 6	0%	27%	100%	69%	87%	100%	51%	100%	84%	99%	100%
9 Length of ROW across parks/recreational areas ³	0	0	1.17	0	0	1.47	3.37	0	0	0	0
10 Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	2	0	0	0	1	1	0	0	0	0
11 Length of ROW across cropland	0.90	0.55	0.22	1.91	1.52	0.74	1.14	0.42	0.76	0.75	0.00
12 Length of ROW across pasture/rangeland	0.08	0.45	0.05	1.06	0.39	0.67	1.05	0.00	0.19	0.00	0.00
13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0	0
14 Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0	0
15 Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0	0
16 Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0	0	0	0	0	0
17 Number of pipeline crossings ⁴	0	0	0	0	0	0	0	0	0	0	0
18 Number of transmission line crossings	1	1	0	0	0	0	0	0	0	1	0
19 Number of IH, US and state highway crossings	0	0	1	0	0	0	0	0	0	0	0
20 Number of FM or RM road crossings	0	0	0	0	0	0	0	0	0	0	0
21 Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0
22 Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0	0
23 Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	1	0	0	0	0	1
24 Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0	0
25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0	0
26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	0	1	0	0	0	0
27 Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	1	0	0	0	0	0
28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	2	2	0	2	1	0	0	2	4	3	2
Aesthetics											
29 Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0.42	2.50	0.49	0	0	0.56	0.34	0.17	0	0.80	0
30 Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	0	0.97	0	0	0	0	0	0	0
31 Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0.39	1.87	0.49	0.61	0	1.72	4.37	0	0	0	0.03
Ecology											
32 Length of ROW across upland woodlands/brushlands	0.14	0.79	0	0.14	0	0.67	1.66	0	0	0	1.62
33 Length of ROW across bottomland/riparian woodlands	0	0.79	0	0.71	0.02	0.22	0.68	0	0.12	0.03	0
34 Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0	0
35 Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0	0
36 Length of ROW across open water (lakes, ponds)	0	0.02	0	0	0.02	0	0	0	0	0	0
37 Number of stream and river crossings	0	2	0	3	1	2	7	0	6	1	0
38 Length of ROW parallel (within 100 feet) to streams or rivers	0	0	0	0	0	0.06	0.28	0	0.19	0.02	0
39 Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0	0
40 Length of ROW across FEMA mapped 100-year floodplain	0	0.91	0	0.75	0.38	0.51	0.34	0	0.74	0.44	0
Cultural Resources											
41 Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	1	2	1	0	0	0	0
42 Number of recorded cultural resource sites crossed by ROW	1	1	0	3	2	0	2	0	1	0	0
43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	1	5	1	7	6	2	8	2	5	2	1
44 Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	1	3	0	0	0	0
45 Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	3	0	1	1	1	1	0	0	0	0
46 Length of ROW across areas of high archeological site potential	0.57	2.36	0.18	2.04	1.22	1.97	2.91	0.42	1.08	0.56	1.22

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		12	13	14	15	16	17	18	19	20	21
Land Use											
1	Length of alternative route (miles)	2.65	0.90	1.02	0.63	3.32	2.45	1.67	1.53	2.90	2.78
2	Number of habitable structures ¹ within 500 feet of the route centerline	19	0	1	4	2	24	24	30	6	19
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0.90	1.02	0	0	0	0	0	0	0
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0	0	0	1.11	0.17	0	0	0	0.22
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0.56	0	0	0.30	1.11	1.46	1.24	1.18	1.99	1.98
7	Sum of evaluation criteria 3, 4, 5, and 6	0.56	0.90	1.02	0.30	2.22	1.63	1.24	1.18	1.99	2.20
8	Percent of evaluation criteria 3, 4, 5, and 6	21%	100%	100%	47%	67%	67%	74%	77%	69%	79%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	0.00	0.23	0.01	0.00	0.00	0.00	0.47	0.21	0.00	0.26
12	Length of ROW across pasture/rangeland	1.15	0.31	0.07	0.30	0.29	1.75	0.75	0.64	0.52	1.17
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0	0	0	0	0
17	Number of pipeline crossings ⁴	0	0	0	0	0	0	0	0	0	0
18	Number of transmission line crossings	1	0	0	0	0	1	1	0	0	0
19	Number of IH, US and state highway crossings	0	0	1	0	0	0	0	0	0	0
20	Number of FM or RM road crossings	0	0	0	0	0	0	0	0	0	0
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	1	0	1	1	1	0	0	0	1	1
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	3	0	0	1	1	0	1	0	1	1
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	1	0	0	0	0	0	0	0	0	0
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	7	1	0	9	20	6	5	6	6
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0.15	0	0.83	0	0	0	0	1.53	1.89	0
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	0	0	0	0	0	0	0	0
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	1.33	0.33	0.69	0.31	2.68	0.61	0.38	0.48	2.34	1.33
33	Length of ROW across bottomland/riparian woodlands	0.04	0.02	0.21	0	0.32	0.03	0	0.17	0	0
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0.01	0	0	0.01	0	0.02	0	0	0	0
37	Number of stream and river crossings	0	1	1	0	2	2	1	2	0	0
38	Length of ROW parallel (within 100 feet) to streams or rivers	0	0	0.23	0	0	0	0	0.00	0	0
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0.35	0.60	0.45	0.28	0.36	0.05	0.11	0.21	0.25	1.85
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	0	0	1	0	1
42	Number of recorded cultural resource sites crossed by ROW	0	3	0	0	3	0	1	0	0	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	5	1	1	2	3	5	0	1	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	1.23	0.90	0.84	0.09	2.16	1.51	1.51	1.46	1.15	0.89

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		22A	22B	24	25	26	27	28	29	30	31
Land Use											
1	Length of alternative route (miles)	0.32	2.75	8.42	0.80	1.44	1.57	0.96	3.21	1.87	0.93
2	Number of habitable structures ¹ within 500 feet of the route centerline	1	20	78	20	4	12	2	3	0	0
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0	0.54	0	0	0	0	0	0	0
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0.28	2.42	4.43	0	0.26	0.89	0.41	1.66	1.66	0.24
7	Sum of evaluation criteria 3, 4, 5, and 6	0.28	2.42	4.97	0.00	0.26	0.89	0.41	1.66	1.66	0.24
8	Percent of evaluation criteria 3, 4, 5, and 6	86%	88%	59%	0%	18%	57%	43%	52%	89%	26%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Length of ROW across pasture/rangeland	0.00	0.00	4.08	0.06	0.71	0.48	0.43	2.32	0.47	0.65
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0	0	0	0	0
17	Number of pipeline crossings ⁴	0	0	1	0	0	0	0	0	0	0
18	Number of transmission line crossings	0	0	0	0	0	0	0	0	0	0
19	Number of IH, US and state highway crossings	0	0	1	0	0	1	0	0	0	0
20	Number of FM or RM road crossings	0	0	0	0	0	0	0	0	0	0
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	1	1	0	0	0	1	1	0	1	0
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	5	0	0	0	0	0	0	0
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	0	1	11	10	2	0	7	0	0
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0	0	1.14	0.16	0	1.57	0.07	0	0	0
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	0	0	0	0	0	0	0	0
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	0.281248	2.43	2.16	0.69	0.72	0.92	0.33	0.88	0.68	0.02
33	Length of ROW across bottomland/riparian woodlands	0	0.10	0.60	0.05	0	0.05	0	0	0	0
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0	0	0	0	0	0.06	0	0	0	0
37	Number of stream and river crossings	0	1	4	2	1	0	0	1	0	3
38	Length of ROW parallel (within 100 feet) to streams or rivers	0	0	0.21	0	0	0.04	0	0	0	0
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0	0.08	0.66	0.19	0.35	0	0.02	0.08	0	0.11
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	1	0	1	0	0	0	0
42	Number of recorded cultural resource sites crossed by ROW	0	0	0	1	1	0	0	0	0	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	1	1	1	1	0	0	0	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	0.32	0.95	2.48	0.49	1.17	0.77	0.02	1.98	0.73	0.93

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		32	33	34	35	36	37	38	39	40	41
Land Use											
1	Length of alternative route (miles)	1.21	1.73	0.53	3.34	4.22	3.48	6.69	2.06	2.16	1.68
2	Number of habitable structures ¹ within 500 feet of the route centerline	14	23	0	0	81	6	38	1	0	4
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0	0	0	1.65	0	0.33	0	0	0
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0.80	0.40	0.26	2.19	2.35	1.16	4.42	0.91	0.10	0.94
7	Sum of evaluation criteria 3, 4, 5, and 6	0.80	0.40	0.26	2.19	4.01	1.16	4.74	0.91	0.10	0.94
8	Percent of evaluation criteria 3, 4, 5, and 6	66%	23%	48%	66%	95%	33%	71%	44%	4%	56%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	0.00	0.00	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.29
12	Length of ROW across pasture/rangeland	0.00	0.05	0.07	1.22	0.14	0.43	1.26	0.24	0.13	0.72
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0.043687	0	0	0
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0.01	0	0	1.57	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0	0	0	0	0
17	Number of pipeline crossings ⁴	0	0	0	0	0	0	1	0	0	0
18	Number of transmission line crossings	0	1	0	0	0	0	1	0	0	1
19	Number of IH, US and state highway crossings	0	0	0	0	1	1	0	0	0	0
20	Number of FM or RM road crossings	0	0	0	0	0	0	0	0	0	0
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	1	0	0	0	0	0	0	0	0
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	1
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	0	0	0	0	0	0	0	0	0
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0	0	0	0	1.22	1.09	0	0	0	0
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	0	0	0	0	0	0	0	0
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	1.18	1.40	0.45	1.79	2.43	1.63	1.71	1.32	1.93	0.67
33	Length of ROW across bottomland/riparian woodlands	0.03	0.23	0	0.20	1.53	1.03	0.83	0.07	0.09	0
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0	0	0	0.01	0	0	0.02	0	0	0
37	Number of stream and river crossings	1	4	1	2	9	11	7	2	1	1
38	Length of ROW parallel (within 100 feet) to streams or rivers	0	0.01	0.07	0	1.22	0.55	0.52	0.21	0	0
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0	0.12	0	0.16	1.46	1.04	1.02	0.15	0.22	0
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	1	0	0	0	0	0
42	Number of recorded cultural resource sites crossed by ROW	0	0	0	0	0	2	0	0	1	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	1	0	0	1	0	0	0	0	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	0.32	1.45	0.53	1.46	3.35	2.08	5.09	0.59	0.55	0.93

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		42	43	44	45A	45B	46	47	48	49	50
Land Use											
1	Length of alternative route (miles)	1.97	1.98	2.66	4.24	0.10	7.09	1.55	11.53	2.40	4.72
2	Number of habitable structures ¹ within 500 feet of the route centerline	6	2	2	4	0	32	0	27	19	9
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0	0	4.24	0.10	0	0	0	0	0
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0.33	0	0	0	0	3.92	0	3.61	0	1.96
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0.07	1.48	0.33	0	0	0.25	0	3.14	0.67	0
7	Sum of evaluation criteria 3, 4, 5, and 6	0.40	1.48	0.33	4.24	0.10	4.17	0.00	6.76	0.67	1.96
8	Percent of evaluation criteria 3, 4, 5, and 6	20%	75%	13%	100%	100%	59%	0%	59%	28%	41%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	0.00	0.24	0.15	0.46	0.10	0.52	0.34	0.32	0.74	0.98
12	Length of ROW across pasture/rangeland	1.47	1.14	0.74	2.14	0.00	3.40	0.78	5.99	0.39	2.74
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0.25	0	0	0	0.05	0	0.18
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0.44	0	0	0	0
17	Number of pipeline crossings ⁴	0	0	0	1	0	0	1	0	0	1
18	Number of transmission line crossings	0	0	0	0	0	0	0	1	1	1
19	Number of IH, US and state highway crossings	1	0	0	0	0	0	0	0	1	0
20	Number of FM or RM road crossings	0	0	0	1	0	3	0	2	0	1
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	1	0	0	0	0
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	0	0	0	0	0	0	0	0	0
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	1.35	0	0	0	0	4.45	0	0	1.10	0
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0.03	0	0	1.04	0	3.64	0	2.17	0	1.74
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	0.35	0.54	1.44	1.35	0	2.17	0.30	4.03	0.91	0.68
33	Length of ROW across bottomland/riparian woodlands	0.10	0.04	0.33	0	0	0.49	0.12	0.91	0.29	0.04
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0.02	0	0
35	Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0	0	0	0	0	0.00	0	0	0	0.03
37	Number of stream and river crossings	2	2	3	2	0	12	1	9	6	6
38	Length of ROW parallel (within 100 feet) to streams or rivers	0	0	0	0	0	0.52	0	0.05	0	0.19
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0.32	0.18	0.28	0	0	0.22	0.02	1.42	0.29	0.36
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	1	0	0	0	0
42	Number of recorded cultural resource sites crossed by ROW	0	0	0	0	0	0	0	0	0	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	0.73	1.08	2.15	1.58	0.06	5.13	1.03	7.04	1.53	3.39

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		51	52	53	54	55	56	57	58	59	60
Land Use											
1	Length of alternative route (miles)	5.86	0.39	4.20	0.38	3.28	3.54	3.40	0.15	3.59	2.33
2	Number of habitable structures ¹ within 500 feet of the route centerline	14	0	5	0	5	6	1	1	1	8
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0.39	0	0	0	2.47	0	0	0	1.71
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	1.25	0	0	0	0.60	0	2.13	0	0	0
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	2.45	0	0.86	0.09	1.65	0.70	0	0.15	1.25	0.32
7	Sum of evaluation criteria 3, 4, 5, and 6	3.70	0.39	0.86	0.09	2.25	3.18	2.13	0.15	1.25	2.02
8	Percent of evaluation criteria 3, 4, 5, and 6	63%	100%	21%	25%	69%	90%	63%	100%	35%	87%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	1.47	0.05	1.01	0.00	0.73	0.47	0.67	0.01	0.16	0.39
12	Length of ROW across pasture/rangeland	1.10	0.27	1.71	0.26	1.94	1.76	1.50	0.14	2.23	0.74
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0.21	0	0	0	0	0	0	0	0.17	0
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0.57	0	0	0	1.18	0	0	0
17	Number of pipeline crossings ⁴	0	0	1	0	0	0	1	0	0	0
18	Number of transmission line crossings	0	0	0	1	0	0	0	0	1	1
19	Number of IH, US and state highway crossings	0	0	1	0	0	0	0	0	0	0
20	Number of FM or RM road crossings	2	0	1	0	1	0	0	0	0	1
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	1	0	1	1	1
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	1	0
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	1	0	0	0	1	1	0	1	1	1
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	2	0	0	0	1	0	0	1	1	1
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	2	0	2	0	2	0	0	0	2	0
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	0	0	0	0	0	2	0	0	0
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0	0	1.50	0	0	0	2.62	0	0	0
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	5.21	0	1.08	0	0.59	0.23	0	0.15	0.51	2.33
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0.77	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	1.98	0.06	1.30	0	0.32	1.06	1.08	0	0.62	0.96
33	Length of ROW across bottomland/riparian woodlands	0.98	0.01	0.09	0.12	0.21	0.19	0.11	0	0.41	0.21
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0	0	0.01	0	0.03	0	0	0	0.01	0
37	Number of stream and river crossings	9	0	3	3	6	3	2	0	5	2
38	Length of ROW parallel (within 100 feet) to streams or rivers	0.36	0	0.08	0.20	0	0	0	0	0	0
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0.98	0.08	0.08	0.38	0.72	0.77	0	0	1.48	0.60
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	2	0	0	0	0	0	1	0	0	0
42	Number of recorded cultural resource sites crossed by ROW	0	0	1	0	0	0	0	0	0	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	4.90	0.28	1.94	0.38	2.33	2.23	2.29	0	3.40	0.73

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria

Land Use	61	62	63	65	66	67	68A	68B	69	70
1 Length of alternative route (miles)	3.38	4.52	0.96	1.16	5.23	2.51	0.34	4.63	4.31	5.61
2 Number of habitable structures ¹ within 500 feet of the route centerline	10	6	0	3	2	1	0	14	4	6
3 Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4 Length of ROW parallel and adjacent to existing transmission line ROW	0.22	0	0	0	0	2.51	0.34	1.67	0	0
5 Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0.13	0	0	0	0	0	0	0.86	0.45
6 Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0.29	1.49	0	0	1.21	0	0	0.97	1.16	0.28
7 Sum of evaluation criteria 3, 4, 5, and 6	0.51	1.61	0.00	0.00	1.21	2.51	0.34	2.64	2.02	0.73
8 Percent of evaluation criteria 3, 4, 5, and 6	15%	36%	0%	0%	23%	100%	100%	57%	47%	13%
9 Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10 Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	1	0	0	0	0	1	0
11 Length of ROW across cropland	0.00	0.00	0.00	0.17	0.35	0.00	0.00	0.37	0.00	0.00
12 Length of ROW across pasture/rangeland	1.26	3.44	0.10	0.28	3.90	1.53	0.34	2.10	1.82	2.70
13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0.22	0	0	0	0	0	0
14 Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15 Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16 Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0	0	0	0.26	0
17 Number of pipeline crossings ⁴	0	1	0	0	0	0	0	1	1	0
18 Number of transmission line crossings	0	2	0	0	2	0	0	2	1	1
19 Number of IH, US and state highway crossings	1	1	0	0	2	1	0	1	1	2
20 Number of FM or RM road crossings	0	0	0	1	0	0	0	0	0	0
21 Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	1	1	0	1	0	1	1	1	1	1
22 Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23 Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
24 Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	1	0	0
25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	1	0	0	0	0	0	0	0	0	0
26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	0	0	1	0	1
27 Number of identifiable existing water wells within 200 feet of the ROW centerline	3	1	0	0	0	0	0	0	1	1
28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	1	0	0	1	0	0	3	1	1
Aesthetics										
29 Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	1.00	2.70	0.05	0	2.01	1.50	0.14	1.31	2.09	1.92
30 Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0.33	0.34	0	0.90	0	0.51	0	0	0	0
31 Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0.56	0	0	0	0	0	0	0	1.09	0
Ecology										
32 Length of ROW across upland woodlands/brushlands	0.96	0.30	0.73	0.47	0.85	0.53	0	1.29	1.85	2.06
33 Length of ROW across bottomland/riparian woodlands	1.11	0.69	0.14	0	0.08	0.41	0	0.73	0.57	0.76
34 Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35 Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36 Length of ROW across open water (lakes, ponds)	0	0	0	0	0.01	0	0	0.02	0	0
37 Number of stream and river crossings	7	4	1	1	1	4	0	11	6	12
38 Length of ROW parallel (within 100 feet) to streams or rivers	0.09	0.27	0	0.25	0.12	0.10	0	0.24	0.13	0.07
39 Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40 Length of ROW across FEMA mapped 100-year floodplain	1.73	1.33	0.10	0	0	0.09	0	0.31	0.31	1.03
Cultural Resources										
41 Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	0	0	1	0	0
42 Number of recorded cultural resource sites crossed by ROW	0	0	0	0	0	0	0	0	0	0
43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
44 Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45 Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46 Length of ROW across areas of high archeological site potential	2.96	2.96	0.96	0.87	2.35	1.58	0.08	3.80	3.13	4.94

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria

Land Use	71	72	73	74	75	76	77	78	80	81
1 Length of alternative route (miles)	3.51	3.49	2.56	2.92	1.40	1.51	1.27	5.56	2.75	1.05
2 Number of habitable structures ¹ within 500 feet of the route centerline	10	12	7	7	6	0	0	1	5	0
3 Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4 Length of ROW parallel and adjacent to existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
5 Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	2.00	0	0.37	1.38	1.51	0	0.02	0	0
6 Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	1.16	0	1.09	1.1287	0	0	0.91	1.92	0.94	0
7 Sum of evaluation criteria 3, 4, 5, and 6	1.16	2.00	1.09	1.50	1.38	1.51	0.91	1.94	0.94	0.00
8 Percent of evaluation criteria 3, 4, 5, and 6	33%	57%	42%	51%	99%	100%	72%	35%	34%	0%
9 Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10 Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11 Length of ROW across cropland	0.00	0.50	0.27	0.00	0.00	0.00	0.00	0.34	0.00	0.00
12 Length of ROW across pasture/rangeland	1.93	1.88	0.90	1.12	0.46	0.51	0.31	1.76	1.42	0.19
13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0
14 Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15 Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16 Length of ROW parallel and adjacent to pipelines ⁴	0	0.28	0	0	0	0	0	0	0	0
17 Number of pipeline crossings ⁴	1	4	4	3	0	0	0	2	0	0
18 Number of transmission line crossings	0	0	0	0	0	0	0	0	0	0
19 Number of IH, US and state highway crossings	0	0	0	0	0	0	0	0	0	1
20 Number of FM or RM road crossings	0	0	1	0	0	0	0	0	0	0
21 Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	1	0	0	1	0	0	0	0	0	0
22 Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23 Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
24 Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
27 Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	3	2	0	0	0	0	0	0
28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	1	0	1	1	0	0	0	0	0	1
Aesthetics										
29 Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0	0	0	0	0	0	0	0	0.47	0.53
30 Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	1.04	0	0	0	0	0	0	0
31 Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology										
32 Length of ROW across upland woodlands/brushlands	1.50	0.95	1.25	1.41	0.69	0.98	0.96	3.09	1.15	0.66
33 Length of ROW across bottomland/riparian woodlands	0.05	0.11	0.09	0.33	0.24	0	0	0.35	0.14	0.18
34 Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35 Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36 Length of ROW across open water (lakes, ponds)	0	0	0	0.04	0	0	0	0	0.00	0
37 Number of stream and river crossings	2	3	2	2	2	0	0	5	3	2
38 Length of ROW parallel (within 100 feet) to streams or rivers	0	0	0	0.02	0	0	0	0.11	0	0
39 Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40 Length of ROW across FEMA mapped 100-year floodplain	0	0.06	0.05	0	0.09	0	0	0.29	0.35	0.06
Cultural Resources										
41 Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
42 Number of recorded cultural resource sites crossed by ROW	0	0	0	0	0	0	0	0	0	0
43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	1
44 Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45 Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46 Length of ROW across areas of high archeological site potential	2.62	2.90	1.11	2.29	1.11	1.27	0.88	4.49	1.54	0.84

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		82	83	84	85	86	87	88	89	90	91
Land Use											
1	Length of alternative route (miles)	0.41	3.11	1.99	1.70	3.67	3.71	4.70	2.04	1.92	0.28
2	Number of habitable structures ¹ within 500 feet of the route centerline	2	0	0	1	1	0	6	0	2	0
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0.72	0.20	1.70	0.39	0	0	0	1.41	0
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0	0.09	1.66	0	1.68	2.10	2.84	1.11	0	0.05
7	Sum of evaluation criteria 3, 4, 5, and 6	0.00	0.81	1.86	1.70	2.07	2.10	2.84	1.11	1.41	0.05
8	Percent of evaluation criteria 3, 4, 5, and 6	0%	26%	93%	100%	56%	57%	60%	54%	74%	17%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
12	Length of ROW across pasture/rangeland	0.32	0.95	0.54	0.00	0.98	0.59	0.79	0.35	1.44	0.00
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0.00	0	0	0	0	0	0.11	0
17	Number of pipeline crossings ⁴	1	2	0	0	1	4	0	1	1	0
18	Number of transmission line crossings	0	0	0	0	0	0	0	0	0	0
19	Number of IH, US and state highway crossings	0	0	0	0	0	0	0	0	0	0
20	Number of FM or RM road crossings	0	0	0	0	0	0	0	0	0	0
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	0	0	0	1	2	0	0	0	0
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0	0	0	1.70	0	0	0.47	0	1.92	0.28
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	0	0	0	0	0	0	0	0
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	0.08	1.69	1.32	1.22	2.02	2.06	2.82	1.53	0.48	0.28
33	Length of ROW across bottomland/riparian woodlands	0	0.46	0.09	0.47	0.67	1.06	0.51	0.15	0	0
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across known critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0	0	0.01	0	0	0	0.07	0	0	0
37	Number of stream and river crossings	0	6	3	3	6	10	9	5	2	0
38	Length of ROW parallel (within 100 feet) to streams or rivers	0	0.08	0	0	0	0.34	0.06	0.10	0	0
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0	0	0.22	0.48	0.55	0.95	0	0.14	0	0
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
42	Number of recorded cultural resource sites crossed by ROW	0	0	0	0	0	0	0	0	0	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	0.28	1.80	1.18	1.70	2.54	3.13	0.24	1.81	1.92	0.13

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries.

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria		92	93	94	95	96	97	98	99	100	101
Land Use											
1	Length of alternative route (miles)	1.74	3.07	1.05	4.48	2.79	3.05	3.37	2.86	4.29	0.28
2	Number of habitable structures ¹ within 500 feet of the route centerline	3	1	0	6	0	3	7	0	1	0
3	Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0	0	0
4	Length of ROW parallel and adjacent to existing transmission line ROW	0	0	0	0	0.37	0	0	0	0	0
5	Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0.76	0.30	0	0	0	0	0	0	0
6	Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0.19	0	0.66	1.36	0.69	0.63	1.57	0.10	3.04	0
7	Sum of evaluation criteria 3, 4, 5, and 6	0.19	0.76	0.96	1.36	1.06	0.63	1.57	0.10	3.04	0.00
8	Percent of evaluation criteria 3, 4, 5, and 6	11%	25%	91%	30%	38%	21%	47%	3%	71%	0%
9	Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
10	Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
11	Length of ROW across cropland	0.00	0.00	0.00	0.06	0.25	0.00	0.00	0.00	0.00	0.00
12	Length of ROW across pasture/rangeland	0.31	0.05	0.00	1.85	1.05	1.02	0.81	0.35	0.73	0.19
13	Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0	0	0
14	Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0	0	0
15	Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0	0	0
16	Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0.13	0	0	0	0	0	0
17	Number of pipeline crossings ⁴	0	2	0	2	1	0	0	0	0	0
18	Number of transmission line crossings	0	0	0	0	0	0	0	0	0	0
19	Number of IH, US and state highway crossings	1	0	0	0	0	0	0	0	0	1
20	Number of FM or RM road crossings	0	0	0	0	1	1	2	1	0	0
21	Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
22	Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
23	Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
24	Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
25	Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
26	Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
27	Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
28	Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	0	2	0	1	0	0	0	4	0
Aesthetics											
29	Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0.75	0	0	0.28	0	3.05	0	0	0.25	0.28
30	Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	0	0	0	0	1.01	1.49	1.76	1.07	0.26	0.28
31	Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0	0	0
Ecology											
32	Length of ROW across upland woodlands/brushlands	1.10	2.36	1.04	2.24	1.42	0.68	2.30	2.34	2.67	0.00
33	Length of ROW across bottomland/riparian woodlands	0.31	0.65	0	0.24	0.05	0.59	0.22	0.15	0.59	0.06
34	Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0	0	0
35	Length of ROW across know critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0	0	0
36	Length of ROW across open water (lakes, ponds)	0	0	0	0.06	0	0.01	0	0	0.02	0.00
37	Number of stream and river crossings	2	5	0	6	1	8	3	3	13	0
38	Length of ROW parallel (within 100 feet) to streams or rivers	0	0.11	0	0	0	0.45	0	0	0.49	0.06
39	Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0	0	0
40	Length of ROW across FEMA mapped 100-year floodplain	0	0.55	0	0.33	0	0.99	0.61	0	0.02	0
Cultural Resources											
41	Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	0	0	0	0	0	0
42	Number of recorded cultural resource sites crossed by ROW	0	0	0	0	0	0	0	0	0	0
43	Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
44	Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0	0	0
45	Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0	0	0
46	Length of ROW across areas of high archeological site potential	1.54	1.58	0.32	3.25	1.70	2.85	2.70	1.69	3.65	0.28

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

Table 4-2
Land Use and Environmental Data For Segment Evaluation
Howard Road to San Miguel

Evaluation Criteria

Land Use	102	104	105	106	107	108	109	110
1 Length of alternative route (miles)	1.46	6.20	3.64	4.36	3.57	0.16	4.20	0.17
2 Number of habitable structures ¹ within 500 feet of the route centerline	0	1	0	0	0	0	0	0
3 Length of ROW using existing transmission line ROW	0	0	0	0	0	0	0	0
4 Length of ROW parallel and adjacent to existing transmission line ROW	0	5.49	0	0	0	0	0	0
5 Length of ROW parallel to other existing ROW (roadways, railways, etc.)	0	0	3.64	0	0	0	0	0
6 Length of ROW parallel and adjacent to apparent property lines ² (or other natural or cultural features, etc.)	0	0	0	0	0	0	0	0
7 Sum of evaluation criteria 3, 4, 5, and 6	0.00	5.49	3.64	0.00	0.00	0.00	0.00	0.00
8 Percent of evaluation criteria 3, 4, 5, and 6	0%	89%	100%	0%	0%	0%	0%	0%
9 Length of ROW across parks/recreational areas ³	0	0	0	0	0	0	0	0
10 Number of additional parks/recreational areas ³ within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0
11 Length of ROW across cropland	0.00	0.05	0.00	0.00	0.29	0.00	0.00	0.00
12 Length of ROW across pasture/rangeland	0.31	1.39	0.00	1.33	2.63	0.00	1.69	0.00
13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)	0	0	0	0	0	0	0	0
14 Length of route across conservation easements and/or mitigation banks (Special Management Area)	0	0	0	0	0	0	0	0
15 Length of route across gravel pits, mines, or quarries	0	0	0	0	0	0	0	0
16 Length of ROW parallel and adjacent to pipelines ⁴	0	0	0	0	0	0	0	0
17 Number of pipeline crossings ⁴	0	2	0	2	3	0	2	0
18 Number of transmission line crossings	0	0	0	0	0	0	0	0
19 Number of IH, US and state highway crossings	0	1	0	0	0	0	0	0
20 Number of FM or RM road crossings	0	0	0	0	1	0	0	0
21 Number of FAA registered airports ⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline	0	0	0	0	0	0	0	0
22 Number of FAA registered airports ⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline	0	0	0	0	0	0	0	0
23 Number of private airstrips within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0
24 Number of heliports within 5,000 feet of the ROW centerline	0	0	0	0	0	0	0	0
25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline	0	0	0	0	0	0	0	0
26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline	0	1	1	0	0	0	2	1
27 Number of identifiable existing water wells within 200 feet of the ROW centerline	0	0	0	0	0	0	0	0
28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)	0	1	1	0	1	0	0	0
Aesthetics								
29 Estimated length of ROW within foreground visual zone ⁶ of IH, US and state highways	0.48	0.53	3.64	0	0	0	0.47	0
30 Estimated length of ROW within foreground visual zone ⁶ of FM/RM roads	1.46	0	0.47	0.60	0.95	0.15	0	0
31 Estimated length of ROW within foreground visual zone ^{6 7} of parks/recreational areas ³	0	0	0	0	0	0	0	0
Ecology								
32 Length of ROW across upland woodlands/brushlands	0.95	4.44	3.00	2.49	0.25	0.06	2.13	0.17
33 Length of ROW across bottomland/riparian woodlands	0.12	0.23	0.64	0.52	0.37	0	0.30	0
34 Length of ROW across NWI mapped wetlands	0	0	0	0	0	0	0	0
35 Length of ROW across known critical habitat of federally listed threatened or endangered species	0	0	0	0	0	0	0	0
36 Length of ROW across open water (lakes, ponds)	0.07	0.02	0	0	0	0	0	0
37 Number of stream and river crossings	5	10	7	11	12	0	6	0
38 Length of ROW parallel (within 100 feet) to streams or rivers	0.22	0.35	0	0.34	0.33	0	0	0
39 Length of ROW across Edwards Aquifer Contributing Zone	0	0	0	0	0	0	0	0
40 Length of ROW across FEMA mapped 100-year floodplain	0	0	0.21	0.34	0.89	0	0.17	0
Cultural Resources								
41 Number of cemeteries within 1,000 feet of the ROW centerline	0	0	0	0	1	0	0	0
42 Number of recorded cultural resource sites crossed by ROW	0	0	0	0	1	0	0	0
43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline	0	0	0	0	2	2	3	4
44 Number of resources determined eligible for or NRHP properties crossed by ROW	0	0	0	0	0	0	0	0
45 Number of additional resources determined eligible for or NRHP properties within 1,000 feet of ROW centerline	0	0	0	0	0	0	0	0
46 Length of ROW across areas of high archeological site potential	1.16	4.66	3.64	3.36	2.65	0.16	3.61	0.17

¹Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230-kV or more.

²Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries.

³Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴Only steel pipelines six inches and greater in diameter carrying hydrocarbons were quantified in the pipeline crossing and paralleling calculations.

⁵As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria. All length measurements are shown in miles unless noted otherwise.

This page left blank intentionally.

4.1.2 Impacts on Soils

Potential impacts to soils from the construction, operation, and maintenance of electric transmission lines include erosion and compaction. Such impacts can be avoided by CPS Energy and STEC's implementation of appropriate mitigative measures during construction. No conversion of prime farmland soils is anticipated to occur as a result of Project activities.

The highest risk for soil erosion and compaction is associated with the clearing and construction phases of the Project. In accordance with CPS Energy and STEC's standard construction specifications, woody vegetation would be cleared within the ROW, as necessary to achieve conductor to ground clearance of the transmission line. Areas with vegetation removed would have the highest potential for soil erosion and the movement of heavy equipment through the cleared ROW creates the greatest potential for soil compaction. Prior to construction, CPS Energy and STEC would develop a SWPPP to minimize potential impacts associated with soil erosion, compaction, and external ROW sedimentation. Implementation of this plan would incorporate temporary and permanent BMPs to minimize soil erosion on the ROW during rainfall events. The SWPPP would also establish the criteria for mitigating soil compaction and re-vegetation to maintain soil stabilization during the construction and post construction phases. The existing herbaceous layer of vegetation would be maintained, to the extent practical, during construction. Most denuded areas with low erosion potential would be allowed to re-vegetate with native herbaceous species. Areas with a high erosion potential, including steep slopes and areas with shallow topsoil, might require seeding and/or implementation of permanent BMPs (i.e., soil berms or interceptor slopes) to stabilize disturbed areas and minimize soil erosion potential. The ROW would be inspected during and post construction to identify potential high erosion areas to ensure that BMPs are implemented and maintained.

The potential for erosion and compaction would be minimized by CPS Energy and STEC's development and implementation of SWPPP's for the Project. The range of potential soil impacts is considered equivalent for each of the alternative routes.

4.1.3 Impacts on Surface Water

CPS Energy and STEC propose to span surface waters crossed by the alternative routes. Structures would be constructed outside of the ordinary high-water mark for each surface water being spanned. CPS Energy and STEC would only remove woody vegetation near surface waters to meet conductor to ground clearance requirements. The understory and herbaceous layers of vegetation would remain, where allowable, and BMPs would be implemented in accordance with the SWPPP for the Project to reduce the potential for sedimentation into surface waters. Minimal impacts to surface waters are anticipated for the alternative routes.

The number of linear surface water crossings (stream or river features) ranges from 47 crossings for Alternative Route V, to 74 crossings for Alternative Route C. Most of the alternative routes cross an open water feature (lake

or pond features). The length across open water ranges from 0 (zero) mile for Alternative Routes Z and AG, to 0.20 mile for Alternative Route B. All alternative routes have length of ROW parallel (within 100 feet) to streams or rivers and range from 0.91 miles for Alternative Route Y, to 2.80 miles for Alternative Route AG. The number of streams and rivers crossed by each of the alternative routes, lengths of each alternative route crossing open waters (lakes, ponds), and lengths paralleling (within 100 feet) streams or rivers are provided in Table 4-1.

4.1.4 Impacts on Ground Water

None of the alternative routes intersect the Edwards Aquifer Artesian Zone. The construction, operation, and maintenance of the Project are not anticipated to adversely affect groundwater resources within the study area.

Avoidance and minimization measures of potential contamination of water resources (related to minor fuel and/or chemical spills) would be identified in the SWPPP. CPS Energy and STEC would take necessary precautions to avoid the occurrence of these spills. If an unauthorized discharge occurs during construction, CPS Energy and STEC would comply with TCEQ and EAA notification requirements.

4.1.5 Impacts on Floodplains

The construction of the alternative routes is not anticipated to impact the overall function of a floodplain within the study area, or adversely affect adjacent or downstream properties. Engineering design would alleviate the potential of construction activities to adversely impact flood channels while proper structure placement would minimize flow impedance during a major flood event. Typically, the small footprint of a pole structures, as proposed for the Project, would not significantly alter the flow of water within a floodplain.

All alternative routes have length of ROW across mapped 100-year floodplains and range from 4.00 miles for Alternative Route AH, to 9.94 miles for Alternative Route S.

4.1.6 Impacts on Wetlands

Only Alternative Routes B, D, E, F, G, J, and AH cross NWI mapped wetlands for 0.02 mile each. However, unmapped wetlands still have the potential to occur within the study area. Removal of vegetation in wetlands increases the potential for erosion and sedimentation, which can be detrimental to downstream plant communities and aquatic life. Wetland areas also provide habitat to several species and are often used as migration corridors for wildlife. Mitigation measures supported by BMPs, would be implemented, as appropriate, in areas identified as potential wetlands. BMPs would be utilized during construction activities to further avoid and minimize impacts to those areas. CPS Energy and STEC propose to implement BMPs as a component of their SWPPP to prevent external ROW sedimentation and degradation of potential wetland areas. With the use of these avoidance and minimization measures, the alternative routes are anticipated to have none to minimal impact on potential wetlands.

The temporary and/or permanent placement of fill material within jurisdictional waterways and wetlands may require a permit from the USACE under Section 404 of the CWA. If necessary, CPS Energy and STEC would coordinate with the USACE – Fort Worth District prior to clearing and construction to ensure compliance with Section 404 of the CWA.

4.1.7 Impacts on Coastal Natural Resources Areas

The study area is not located within the CMZ boundary as defined by 31 TAC § 27.1(a), which excludes the Project from CMP conditions.

4.1.8 Impacts on Vegetation

Potential impacts to vegetation would result from clearing the ROW of vegetation and/or mowing/clearing of vegetation. These activities would facilitate ROW access for structure construction, line stringing, and future maintenance activities of the proposed transmission line.

Impacts to vegetation would generally be limited to the transmission ROW. Additional clearing may be necessary in temporary easements outside of the ROW to facilitate the construction of the transmission line. These clearing activities would be implemented by minimizing the impacts to existing groundcover vegetation when practical. Future ROW maintenance activities might include periodic mowing and/or herbicide applications to deter and/or maintain an herbaceous vegetation layer within the ROW.

Clearing trees and shrubs from woodland areas typically generates a degree of habitat fragmentation. The magnitude of habitat fragmentation was minimized to the extent possible during the routing process by paralleling existing linear features such as roadways. During the route development process, consideration was given to avoid wooded areas and/or to maximize the length of the routes parallel to existing linear features. Vegetation clearing would occur only where necessary to provide access, workspace, and future maintenance access to the ROW.

Each alternative route has length of ROW across upland woodlands/brushlands which ranges from approximately 17.23 miles for Alternative Route T, to approximately 22.84 miles for Alternative Route E. Additionally, all of the alternative routes have length of ROW across bottomland/riparian woodlands which ranges from approximately 2.90 miles for Alternative Route AA, to approximately 6.45 miles for Alternative Route C. The lengths of each alternative route crossing upland woodlands/brushlands and bottomland/riparian woodlands are provided in Table 4-1.

4.1.9 Impacts on Wildlife

The primary impacts of construction activities on wildlife species are typically associated with disturbances from construction activities, and the removal of vegetation. Increased noise and equipment movement during construction might temporarily displace mobile wildlife species from the immediate workspace area. These

impacts are considered short-term and normal wildlife movements would be expected to resume after construction is completed. Potential long-term impacts include those resulting from habitat modifications, and/or fragmentation. Each alternative route crosses areas of upland woodlands/brushlands, which can represent the highest degree of habitat fragmentation by converting the area within the ROW to an herbaceous habitat. During the segment and route development process, disturbance to habitat and woodland habitat fragmentation was considered and minimized by paralleling existing linear features and not paralleling streams to the extent feasible.

Construction activities could impact small, immobile, or fossorial (living underground) animal species through incidental impacts or from the alteration of local habitats. Incidental impacts to these species might occur due to equipment or vehicular movement on the ROW by direct impact or due to the compaction of the soil if the species is fossorial. Potential impacts of this type are not typically considered relevant and are not likely to have an adverse effect on species population dynamics.

If ROW clearing occurs during bird nesting seasons, potential impacts to birds could occur that include but are not limited to disturbance to breeding, nesting, and fledging. Increases in noise and equipment activity levels during construction could also potentially disturb breeding or other activities of species nesting in areas immediately adjacent to the ROW. If ROW clearing activities are necessary during the migratory bird nesting season (March 15 to September 15), CPS Energy and STEC would comply with state (Texas Parks and Wildlife Code Chapter 64) and federal (MBTA) regulations regarding avian species by having a qualified biologist conduct surveys for active nests prior to ground disturbance and/or vegetation clearing.

Transmission lines can also present additional hazards to birds due to electrocutions and/or collisions. Measures would be implemented to minimize this risk with transmission line through engineering designs. The electrocution risk to birds would not be significant since the engineering design distance between conductors, conductor to structure, or conductor to ground wire for the proposed transmission line is greater than the wingspan of most birds typically expected to occur within the area (i.e., greater than eight feet). The risk for avian collisions with the shield wire can be minimized by installing bird flight diverters or other marking devices on the line within determined high bird use areas.

4.1.10 Impacts on Aquatic Resources

Potential impacts to aquatic resources would include potential effects of erosion, siltation, and sedimentation. Vegetation clearing of the ROW might result in increased suspended solids entering surface waters near the Project. Increases in suspended solids might adversely affect aquatic organisms that require relatively clear water for foraging and/or reproduction. Physical aquatic habitat loss or alteration could result wherever riparian vegetation is removed and at temporary crossings required for access. Increased levels of siltation or sedimentation might also potentially impact downstream areas primarily affecting filter feeding benthic and other

aquatic invertebrates. Implementation of a SWPPP utilizing BMPs would minimize these potential impacts. No substantial adverse impacts are anticipated to aquatic habitats crossed or located adjacent to the ROW of the alternative routes.

Construction of the Project is not anticipated to have substantial impacts to wildlife and aquatic resources within the study area. Direct impacts would be associated with the loss of woodland/brushland habitat, which is reflected in the vegetation analysis discussed above. Habitat fragmentation was minimized for each of the alternative routes within woodland areas by paralleling existing linear features to the extent feasible. While highly mobile animals might temporarily be displaced from habitats near the ROW during the construction phase, normal movement patterns should return after Project construction is complete. Implementation of a SWPPP utilizing BMPs would minimize potential impacts to aquatic habitats.

4.1.11 Impacts to Threatened and Endangered Species

In order to assess potential impacts to threatened or endangered species, POWER utilized available information for the species under review. Known occurrence data from TXNDD for the study area and project scoping comments from TPWD were reviewed. A USFWS IPaC consultation, TPWD county listings, USFWS designated critical habitat locations, and the SEP HCP were included in the review. A field survey for potential suitable habitat for state and federal protected species would be completed after PUC and CPS Energy approval of a route for the Project. Additional consultation with TPWD and the USFWS for avoidance and mitigation measures may be required if suitable habitat is observed during the field survey of the PUC and CPS Energy approved route.

The TXNDD data provides a GIS data record of state-listed, rare, and federally threatened and endangered species and special status vegetation communities that have been documented within a given area. The absence of species within the TXNDD database is not a substitute for a species-specific field survey as may be needed to assess potential habitat for state or federal listed special status species. Prior to construction, a field survey would be completed of the PUC and CPS Energy approved route to determine if suitable habitat for threatened and endangered species is present. Additional consultation with the USFWS and TPWD may be required if suitable habitat is observed during field surveys. Review of TPWD'S TXNDD (TPWD 2024) identified one EOR for the state threatened Texas tortoise along School Drive and was last observed at this EOR in 2004. This species does have the potential to occur within the study area wherever suitable habitat is found. Impacts to this species is not anticipated if TPWD's recommendations that are outlines in Appendix A are followed.

Threatened and Endangered Plant Species

Review of the TPWD (2023d) and USFWS (2023b) data identified three plant species that are federally and/or state-listed for Bexar and Atascosa Counties (see Table 3-6 in Section 3.1.11).

The black lace cactus is a federally endangered species that may have the potential to occur within the study area where suitable habitat is available. The bracted twistflower is a federally and state-listed threatened species that is not anticipated to occur within the study area due to lack of suitable habitat. Texas wild-rice is a federally endangered species that is not anticipated to occur within the study area due to the study area being outside of the known range of suitable habitat. Federally listed plant species are only afforded federal protection from take if they are located on federal lands and/or federal funding or actions are associated with the Project. If necessary, CPS Energy and STEC would coordinate with the USFWS regarding the black lace cactus. Construction of the proposed transmission line is not anticipated to have adverse effects on federally listed threatened or endangered plant species.

Threatened and Endangered Animal Species

Review of the TPWD (2023d) and USFWS (2023b) data identified 34 animal species that are federally and/or federally proposed listed, state-listed, or have candidate status, for Bexar and/or Atascosa Counties (see Table 3-6 in Section 3.1.11).

As indicated in Table 4-1, none of the alternative routes cross known critical habitat of federally listed endangered or threatened species. None of the alternative routes intersect known karst locations. Field surveys for potential suitable habitat for federally protected species would be completed after PUC and CPS Energy approval of an alternative route.

Federally Listed, Proposed, and Candidate Species

The study area is located outside of the recognized/known distributions of the San Marcos salamander, Texas blind salamander, Cokendolpher Cave harvestman, Government Canyon Bat Cave meshweaver, Government Canyon Bat Cave spider, Madla Cave meshweaver, Robber Baron Cave meshweaver, Peck's Cave amphipod, fountain darter, unnamed beetle, (*Rhadine exilis*), unnamed beetle (*Rhadine infernalis*), Comal Springs dryopid beetle, Comal Springs riffle beetle, Helotes mold beetle, false spike, and ocelot, and therefore, no impacts to these species are anticipated to occur from the Project. However, as discussed in Section 3.1.10 and 4.1.1, although not anticipated, if suitable potential surface habitat, such as karst, for the subsurface-dwelling species including the Government Canyon Bat Cave Meshweaver, Government Canyon Bat Cave spider, Madla Cave Meshweaver, unnamed beetle, (*Rhadine exilis*), unnamed beetle (*Rhadine infernalis*), and/or the Helotes mold beetle is observed occurring within the study area during field surveys, coordination with the SEP HCP may be necessary. Similarly, if suitable potential habitat for the golden-checked warbler is observed occurring within the study area during field surveys, coordination with the SEP HCP may be necessary.

The rufa red knot is not anticipated to occur within the study area due to the lack of potential suitable habitat, the study area being located outside the migratory corridor, and the rare transient nature of this species. No impacts to these species are anticipated to occur from the Project.

The piping plover and whooping crane may potentially occur temporarily within the study area as a transient migrant wherever suitable habitat is found. The Project is not anticipated to have adverse impacts to piping plover or whooping crane nesting habitat. The golden-cheeked warbler, tricolored bat, and monarch butterfly may occur within the study area wherever suitable habitat is found.

As previously mentioned, field surveys for potential suitable habitat for federally protected species would be completed after PUC and CPS Energy approval of an alternative route. CPS Energy and STEC would consult with the USFWS regarding avoidance measures and mitigation if suitable habitat for the piping plover, whooping crane, golden-cheeked warbler, tricolored bat, and/or monarch butterfly is observed during the survey of the PUC and CPS Energy approved route.

Other Federally Protected Species

The bald eagle and golden eagle may occur within the study area if suitable habitat is available. Bald and golden eagles and their nests are protected under the MBTA and BGEPA. Nests are protected if they have been used within the previous five nesting seasons. If nests are identified or individuals are observed during the field survey of the PUC and CPS Energy approved route, CPS Energy and STEC would further coordinate with the TPWD and USFWS to determine avoidance or mitigation measures.

State-Listed Species

The study area is located outside of the recognized/known distributions of the Cascade Caverns salamander, Texas salamander, and white-nosed coati, and therefore, no impacts to these species are anticipated to occur from the Project. The toothless blindcat, widemouth blindcat, and American black bear are not anticipated to occur within the study area due to the lack of potential suitable habitat. The Project is not anticipated to have adverse impacts to these species.

The white-faced ibis, white-tailed hawk, wood stork, Cagle's map turtle, Texas horned lizard, and Texas tortoise may occur within the study area if suitable habitat is available. If suitable habitat is identified for these species after field surveys occur, CPS shall follow the recommendations outlined in Appendix A to avoid and minimize impacts to these species. CPS Energy and STEC propose to conduct ROW clearing activities in compliance with state (Texas Parks and Wildlife Code Chapter 64) and federal (MBTA) regulations regarding avian species and appoint a qualified biologist to conduct surveys for active nests prior to vegetation clearing.

4.2 Impacts on Human Resources/Community Values

4.2.1 Impacts on Land Use

The magnitude of potential impacts to land use resulting from the construction of a transmission line is determined by the amount of land (land use type) temporarily or permanently displaced by the actual ROW and by the compatibility of the facility with adjacent land uses. During construction, temporary impacts to land uses within the ROW might occur due to the movement of workers, equipment, and materials through the area. Construction noise and dust, as well as temporary disruptions of traffic flow, might also temporarily affect local residents and businesses in the area immediately adjacent the ROW. Coordination between CPS Energy, STEC, their respective contractors, and landowners regarding ROW access and construction scheduling should minimize these disruptions.

The evaluation criteria used to compare potential land use impacts include overall alternative route length, route length parallel to existing linear features (including apparent property boundaries), route proximity to habitable structures, route proximity to park and recreational areas, and route length across various land use types. An analysis of the existing land use within and adjacent to the proposed ROW is required to evaluate the potential impacts.

Alternative Route Length

The length of an alternative route can be an indicator of the relative magnitude of land use impacts. Generally, all other things being equal, the shorter the route, the less land is crossed, which usually results in the least amount of potential impacts. The total lengths of the alternative routes vary from approximately 45.32 miles for Alternative Route R, to approximately 58.92 miles for Alternative Route J. The differences in route lengths reflect the direct or indirect pathway of each alternative route between the Project endpoints. The length of the alternative routes may also reflect the effort to parallel existing transmission lines, other existing linear features and apparent property boundaries, and the geographic diversity of the alternative routes. The approximate lengths for each of the alternative routes are presented in Table 4-1.

Compatible ROW

PUC Substantive Rule 25.101(b)(3)(B) requires that an applicant for a CCN, and ultimately the PUC, consider whether new transmission line routes are within existing compatible ROWs and/or are parallel to existing compatible ROWs, apparent property lines, or other natural or cultural features. Criteria were used to evaluate the use of existing transmission line ROW, length parallel and adjacent to existing transmission line ROW, length of route parallel to other existing linear ROWs, and length of ROW parallel and adjacent to apparent property lines. It should also be noted that if a segment parallels more than one existing linear corridor it was only tabulated once (e.g., a segment that parallels both an apparent property line and a roadway, would only be tabulated as paralleling the roadway).

None of the alternative routes utilize existing transmission line ROW. The alternative routes with lengths of ROW that are parallel and adjacent to existing transmission line ROW vary from approximately 0.11 mile for Alternative Route F, to approximately 11.23 miles for Alternative Route K. The alternative routes with lengths of ROW parallel and adjacent to other existing ROW (roadways, etc.) range from approximately 0.60 mile each for Alternative Routes K and Z, to approximately 12.21 miles for Alternative Route J. The lengths of ROW parallel to other existing ROW for each of the alternative routes are presented in Table 4-1.

All of the alternative routes have lengths of ROW parallel and adjacent to apparent property lines. The length of alternative routes parallel and adjacent to apparent property lines ranges from 10.22 miles for Alternative Route AD, to approximately 19.34 miles for Alternative Route D. The lengths paralleling apparent property lines for each of the alternative routes are presented in Table 4-1.

Typically, a more representative account for the consideration of whether new transmission line routes are parallel to existing compatible ROWs, apparent property lines, or other natural or cultural features is demonstrated with the percentage of each total route length parallel to any of these existing linear features. These percentages can be calculated for each alternative route by adding up the total length parallel to existing transmission lines, other existing ROW, and apparent property lines and then dividing the result by the total length of the alternative route. All of the alternative routes parallel existing linear features for some portion of their lengths. The percentage of the alternative routes paralleling existing linear features ranges from 37% for Alternative Route AD, to 58% for Alternative Route L.

Developed and Residential Areas

Typically, one of the most important measures of potential land use impacts is the number of habitable structures located in the vicinity of each alternative route. Based on direction provided by the PUC, habitable structure identification is included with the CCN application. POWER determined the number of habitable structures located within 500 feet of the centerline of each alternative route and the distance from the centerline through the use of GIS software, interpretation of aerial photography, and verification during reconnaissance surveys.

Due to the nature of the study area, all 34 of the alternative routes have habitable structures located within 500 feet of their centerlines. Alternative Routes X and Y have the least number of habitable structures located within 500 feet of their centerlines at 40 each. Alternative Route AF has the most habitable structures located within 500 feet of its centerline at 179.

Tables 4-8 through 4-41 located in Appendix C present detailed information on habitable structures. The number of habitable structures located within 500 feet of each of the alternative route centerlines are presented in Table 4-1. All known habitable structure locations are shown on Figure 4-1 located in Appendix E (map pocket).

4.2.2 Impacts on Agriculture

Impacts to agricultural land uses can generally be ranked by degree of potential impact, with the least potential impact occurring in areas where cultivation is not the primary use (pastureland/rangeland), followed by cultivated croplands, which have a higher degree of potential impact. Most existing agricultural land uses may be resumed within the ROW following construction.

All of the alternative routes have lengths of ROW that cross a length of known cropland or pastureland/rangeland. The length of alternative routes that cross cropland ranges from approximately 2.62 miles for Alternative Route U, to approximately 6.48 miles for Alternative Route A. The length of alternative routes that cross pastureland/rangeland ranges from approximately 14.70 miles for Alternative Route A, to approximately 23.82 miles for Alternative Route J. The Project would have minimal impacts on cropland or pastureland/rangeland.

Thirty-two of the alternative routes cross lands irrigated by traveling systems (rolling or pivot type). The length of alternative routes that cross land irrigated by traveling systems ranges from 0 (zero) each for Alternative Routes AE and AG, to approximately 0.64 mile for Alternative Route H. The lengths of each of the alternative routes crossing cropland, pastureland/rangeland, and land with known mobile irrigation systems are presented in Table 4-1.

4.2.3 Impacts on Transportation/Aviation Features

Transportation Features

Potential impacts to transportation could include temporary disruption of traffic or conflicts with future proposed roadways and/or utility improvements. Traffic disruptions would include those associated with the movement of equipment and materials to the ROW, and slightly increased traffic flow and/or periodic congestion during the construction phase of the Project. In the less developed portions of the study area, these impacts are typically considered minor, temporary, and short-term. In the more developed portions of the study area, the temporary impacts to traffic flow can be significant during construction but would be temporary and short-term. CPS Energy and STEC would coordinate with the agencies in control of the affected roadways to address these traffic flow impacts. As mentioned in Section 3.2.3, there were several state roadway projects within the study area.

All of the alternative routes cross US or State highways for a portion of their lengths. The number of alternative routes that cross US or State highways ranges from two crossings each for 11 of the alternative routes, to seven for Alternative Route K.

Additionally, there are several identified FM or RM roads in the study area. The number of alternative routes that cross FM or RM roads ranges from three for 10 of the alternative routes, to five for 16 of the alternative routes.

Aviation Facilities

According to FAA regulations, Title 14 C.F.R. Part 77, the construction of a transmission line requires FAA notification if tower structure heights exceed the height of an imaginary surface extending outward and upward at a slope of 100:1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of a public or military airport having at least one runway longer than 3,200 feet. The FAA also requires notification if tower structure heights exceed a 50:1 slope for a horizontal distance of 10,000 feet from the nearest runway of a public or military airport where no runway is longer than 3,200 feet in length, and if tower structure heights exceed a 25:1 slope for a horizontal distance of 5,000 feet for heliports.

There is one public FAA registered airport with at least one runway longer than 3,200 feet located within 20,000 feet of the ROW centerline for 28 of the alternative routes each. There are no FAA registered airports having no runway longer than 3,200 feet located within 10,000 feet of any of the alternative routes. There is also one heliport within 5,000 feet of the ROW centerline for 14 of the alternative routes each.

Following PUC and CPS Energy approval of a complete route for the Project, CPS Energy and STEC would make a final determination of the need for FAA notification, based on specific route location and structure design of the approved route. The result of this notification, and any subsequent coordination with the FAA, could include changes in the line design and/or potential requirements to mark the conductors and/or light the structures.

There are also two private airstrips located within 10,000 feet of the ROW centerline of the alternative routes. The number of private airstrips located within 10,000 feet of the ROW centerline ranges from 0 (zero) for six of the alternative routes, to two for 11 of the alternative routes each. None of the alternative routes are anticipated to have a substantial impact on aviation activities within the study area.

The number of airports, airstrips, and heliports for each of the alternative routes are presented in Table 4-1. Tables 4-8 through 4-41 located in Appendix C present detailed information on airports, airstrips, and heliports. The distance for each airport/airstrip from the nearest route and segment was measured using GIS software and aerial photography interpretation (see Table 4-3). All known airport/airstrip locations are shown on Figures 2-4 and 4-1 located in Appendix D and E (map pockets).

TABLE 4-3 AIRPORT FACILITIES AND RUNWAY LOCATIONS

FIGURE 4-1 MAP ID	AIRPORTS	PRIMARY ALTERNATIVE ROUTES	NEAREST SEGMENT	DISTANCE FROM NEAREST SEGMENTS (FEET)*	ESTIMATED RUNWAY LENGTH (FEET) ^{1/2}	EXCEEDS THE SLOPE ^{1,2}
2001	Cannon Field Airstrip (Private)	A, I, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG	16	1,655	2,600	N/A
2002	Alderman Farm Airstrip (Private)	A, C, H, I, L, M, N, O, P, Q, R, AB, AF	59	7,093	2,000	N/A
2003	Pleasanton Municipal Airport (Public)	A, C, G, H, I, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG	68B	5,418	4,000	Yes
2004	Methodist Hospital South Heliport (Private)	A, C, G, H, I, L, M, N, O, P, Q, R, AB, AF	68B	1,575	38	N/A

¹FAA 2023b; ²POWER aerial photo and USGS interpretation.

²POWER used aerial photo and USGS interpretation considering elevation information obtained from USGS topographic maps and a typical maximum transmission structure height of 160 feet.

4.2.4 Impacts on Communication Towers

All known facilities, including fifth generation (5G), licensed with the FCC have been identified. One commercial AM radio transmitter was identified within 10,000 feet of the ROW centerline for 19 of the alternative routes each. The number of FM radio transmitters, microwave towers, and other electronic communication facilities located within 2,000 feet of each of the ROW centerlines ranges from one each for Alternative Routes D and F, to ten for Alternative Route AE. None of the alternative routes are anticipated to have a substantial impact on electronic communication installations or operations in the study area.

The number of other communication facilities located within 2,000 feet of the alternative routes is presented in Table 4-1. Tables 4-8 and 4-41 located in Appendix C present detailed information on the electronic communication facilities. The distance to the electronic communication facilities from the closest segment was measured using GIS software and aerial photograph interpretation (see Table 4-4). All known radio and communication facility locations are shown on Figures 2-4 and 4-1 located in Appendix D and E (map pockets).

TABLE 4-4 ELECTRONIC COMMUNICATION FACILITIES

FIGURE 4-1 MAP ID	TOWER TYPE	NEAREST SEGMENT	DISTANCE FROM NEAREST SEGMENTS (FEET)*
3001	Other Electronic Installation	7	404
3002	Other Electronic Installation	21	1,247
3003	Other Electronic Installation	18	1,027

TABLE 4-4 ELECTRONIC COMMUNICATION FACILITIES

FIGURE 4-1 MAP ID	TOWER TYPE	NEAREST SEGMENT	DISTANCE FROM NEAREST SEGMENTS (FEET)*
3004	Other Electronic Installation	12	1,342
3005	Other Electronic Installation	24	1,000
3006	Other Electronic Installation	24	830
3007	Other Electronic Installation	24	1,381
3008	Other Electronic Installation	24	1,860
3009	Other Electronic Installation	24	658
3010	Other Electronic Installation	33	203
3011	Other Electronic Installation	46	909
3012	Other Electronic Installation	51	1,318
3013	Other Electronic Installation	59	854
3014	AM Tower	59	2,527
3015	Other Electronic Installation	68B	539
3016	FM Tower	70	1,749
3017	Other Electronic Installation	104	1,936
3018	Other Electronic Installation	109	1,648

*POWER aerial photo and USGS interpretation; FCC 2023.

4.2.5 Impacts on Utility Features

Utility features include existing electrical transmission lines, distribution lines, water wells, pipelines, and oil and gas wells. Numerous water wells were identified within the study area and were mapped and avoided to the extent practicable. The number of identifiable existing water wells within 200 feet of the ROW centerline range from 0 (zero) for Alternative Routes B, D, E, J, and AH, to eight each for Alternative Routes L, M, N and S. If these utility features are crossed by or are in close vicinity to the alternative route centerline approved by the PUC, CPS Energy and STEC would coordinate with the appropriate entities to obtain necessary permits or permission as required. The number of known water wells within 200 feet of each of the alternative route is presented in Table 4-1.

All of the alternative routes cross existing transmission lines throughout the study area. The number of transmission line crossings ranges from three each for Alternative Routes O, P, Q and R, to seven each for Alternative Routes H and I.

All of the alternative routes have oil and gas wells within 200 feet of the ROW centerline. The number of oil and gas wells within 200 feet of the ROW centerline ranges from seven each for Alternative Routes AF and AG, to 43 for Alternative Route J.

All of the alternative routes cross known oil or gas pipelines throughout the study area. The number of pipeline crossings ranges from seven each for Alternative Routes K, S, T, Z, AC and AG, to 18 for Alternative Route B. Additionally, there are 16 alternative routes that have a portion of their lengths of ROW parallel and adjacent to pipelines. The length of ROW parallel and adjacent to pipelines ranges from 0 (zero) for 18 of the alternative routes, to approximately 2.01 miles each for Alternative Routes V and W.

Additionally, only Alternative Routes AF, AG, and AH cross gravel pits, mines, or quarries for approximately 1.58 miles each.

4.2.6 Impacts on Socioeconomics

Construction and operation of the Project is not anticipated to result in a significant change in the population or employment rate within the study area. For this Project, some short-term employment would be generated. CPS Energy and STEC normally use contract labor supervised by each entity's respective employees during the clearing and construction phases of transmission line projects. Construction workers for the project would likely commute to the work site on a daily or weekly basis instead of permanently relocating to the area. The temporary workforce increase would likely result in an increase in local retail sales due to purchases of lodging, food, fuel, and other merchandise for the duration of construction activities. No additional CPS Energy or STEC staff would be required for line operations and maintenance.

4.2.7 Impacts on Community Values

Adverse effects upon community values are defined as aspects of the Project that would significantly and negatively alter the use, enjoyment, or intrinsic value attached to an important area or resource by a community. This definition assumes that community concerns are applicable to this specific Project's location and characteristics, and do not include objections to electric transmission lines in general.

Potential impacts to community resources can be classified into direct and indirect effects. Direct effects are those that would occur if the location and construction of a transmission line and stations result in the removal or loss of public access to a valued resource. Indirect effects are those that would result from a loss in the enjoyment or use of a resource due to the characteristics (primarily aesthetic) of the proposed transmission line, structures, or ROW.

4.3 Impacts on Parks and Recreation Areas

Potential impacts to parks or recreation areas include the disruption or preemption of recreation activities. As previously mentioned in Section 3.3.1, several park or recreational areas meeting the definition set forth in the PUC application were identified within the study area.

Several of the alternative routes cross a portion of a park or recreational area. The length of ROW across parks or recreational areas ranges from 0 (zero) for 11 of the alternative routes, to approximately 4.54 miles each for Alternative Routes AE, AF and AG. Additionally, the number of parks or recreational areas located within 1,000 feet of the alternative routes ranges from 0 (zero) for 13 of the alternative routes, to three for Alternative Routes C, H, and I.

However, no substantial impacts to the use of the parks and recreation areas located within the study area are anticipated from any of the alternative routes. Also, no adverse impacts are anticipated for any other potential fishing or hunting areas from any of the alternative routes.

The number of park or recreational areas located within 1,000 feet of the alternative routes is presented in Table 4-1. Tables 4-8 and 4-41 located in Appendix C present detailed information on the park or recreational areas. The distance to the park or recreational areas from the closest segment was measured using GIS software and aerial photograph interpretation (see Table 4-5). All known park or recreational area locations are shown on Figures 2-4 and 4-1 located in Appendix D and E (map pockets).

TABLE 4-5 PARK AND RECREATIONAL AREAS

FIGURE 4-1 MAP ID	PARK OR RECREATIONAL AREA	NEAREST SEGMENT	DISTANCE FROM NEAREST SEGMENTS (FEET)*
4001	TPWD Lone Star Pass Public Hunting Area	3	0
4002	Medina River Natural Area	6	0
4003	Medina River Preserve	7	0
4004	Medina River Greenway Trail	7	0
4005	Cowboy Fellowship Church Rodeo Arena	65	101
4006	TxDOT Roadside Park	69	249

*POWER aerial photo and USGS interpretation.

4.4 Impacts on Aesthetic Values

Aesthetic impacts, or impacts to visual resources, exist when the ROW, lines and/or structures of a transmission line system create an intrusion into, or substantially alter the character of the existing view. The significance of the impact is directly related to the quality of the view, in the case of natural scenic areas, or to the importance of the existing setting in the use and/or enjoyment of an area, in the case of valued community resources and recreational areas.

Construction of the Project could have both temporary and permanent aesthetic impacts. Temporary impacts would include views of the actual assembly and erection of the tower structures. If wooded areas are cleared, the

brush and wood debris could have an additional temporary impact on the local visual environment. Permanent impacts from the Project would involve the views of the cleared ROW, tower structures, and lines from public viewpoints including roadways, recreational areas, and scenic overlooks.

The study area consists primarily of rural and industrial development with some residential and commercial development scattered throughout; however, no designated landscapes protected by legislation and most forms of development exist within the study area. Potential visibility impacts were evaluated by estimating the length of each alternative route that would fall within the foreground visual zones (0.5 mile with unobstructed views) of major highways, FM/RM roads, and parks or recreational areas. The alternative route lengths within the foreground visual zone of US Hwys, SHs, FM/RM roads, and parks or recreational areas were tabulated and are discussed below.

All of the alternative routes have a portion of the route located within the foreground visual zone of US Hwys and SHs. Lengths range from approximately 2.36 miles each for Alternative Routes L, M, N, Q and R, to 14.84 miles for Alternative Route J. All of the alternative routes have a portion of the route located within the foreground visual zone of FM/RM roads. Lengths range from approximately 3.18 miles for Alternative Route E, to approximately 10.75 miles for Alternative Route O.

All of the alternative routes have a portion of the route located within the foreground visual zone of parks or recreational areas. Length ranges from approximately 0.39 mile each for Alternative Routes A and B, to approximately 4.89 miles each for Alternative Routes AE, AF and AG.

Overall, the character of the study area maintains the characteristics of a rural community and agricultural setting. The residential and commercial developments within the study area have already impacted the aesthetic quality within the region from public viewpoints. The construction of any of the alternative routes is not anticipated to substantially impact the aesthetic quality of the landscape.

4.5 Impacts on Historical (Cultural Resources) Values

Methods for identifying, evaluating, and mitigating impacts to cultural resources have been established for federal projects or permitting actions, primarily for purposes of compliance with the National Historic Preservation Act (NHPA). Similar methods are often used when considering cultural resources affected by state-regulated undertakings. In either case, this process generally involves identification of significant (i.e., national- or state-designated) cultural resources within a Project area, determining the potential impacts of the Project on those resources, and implementing measures to avoid, minimize, or mitigate those impacts.

Impacts associated with the construction, operation, and maintenance of transmission lines can affect cultural resources either directly or indirectly. Construction activities associated with any proposed project can adversely impact cultural resources if those activities alter the integrity of key characteristics that contribute to a property's significance as defined by the standards of the NRHP or the Antiquities Code of Texas. These characteristics might include location, design, setting, materials, workmanship, feeling, or association for architectural and engineering resources or archeological information potential for archeological resources.

4.5.1 Direct Impacts

Typically, direct impacts could be caused by the actual construction of the line or through increased vehicular and pedestrian traffic and excavation for towers during the construction phase. If construction is required near historic structures, landscapes, or districts, proper mitigation and avoidance measures would avoid adversely impacting such features during construction of a transmission line. Additionally, an increase in vehicular and/or pedestrian traffic might damage surficial or shallowly buried sites. Excavation for transmission structures could impact shallow or deeply buried archeological sites. Direct impacts might also include isolation of cultural resource from or alteration of its surrounding environment.

4.5.2 Indirect Impacts

Indirect impacts include those impacts caused by the Project that are farther removed in distance or that occur later in time but are reasonably foreseeable. These indirect impacts might include introduction of visual or audible elements that are out of character with the resource or its setting. Indirect impacts might also occur as a result of alterations in the pattern of land use, changes in population density, accelerated growth rates, or increased pedestrian or vehicular traffic. Absent BMPs, proper mitigation, and avoidance measures, historic buildings, structures, landscapes, and districts are among the types of resources that could be adversely impacted by the indirect impact of a transmission line.

The preferred form of mitigation for direct and indirect impacts to cultural resources is avoidance through project modifications. Additional mitigation measures for direct impacts might include implementing a program for data recovery excavations if an archeological site cannot be avoided. Indirect impacts on historic properties and landscapes can be lessened through careful design and landscaping considerations, such as using vegetation screens or berms if practicable. Additionally, relocation might be possible for some structures.

4.5.3 Summary of Cultural Resource Impacts

The distance of each recorded site located within 1,000 feet from the nearest routing segment and alternative route was measured using GIS software and aerial photography interpretation. A review of the THSA and TASA (THC 2024a and 2024b) records, the TxDOT Historic Resources Aggregator (TxDOT 2024c) and NPS data (NPS

2024d) described in Section 3.5, indicated that 77 archeological sites, two determined-eligible NRHP properties, and 12 cemeteries are recorded within 1,000 feet of the alternative routes. A total of 16 archeological sites are crossed by the alternative route centerlines and ten additional sites are crossed by the alternative route ROWs. Measurements for sites recorded within 1,000 feet of the alternative routes are available in Table 4-6, below.

Of the sites crossed by the alternative route centerlines or ROWs, five (41BX346, 41BX533, 41BX652, 41BX988, and 41BX1579) have been determined eligible for inclusion on the NRHP. Site 41BX346 is a pre-contact campsite with burned rock, debitage and a biface, and post-contact artifact scatter. Site 41BX533 is a pre-contact campsite with burned rock, debitage, and mussel shell fragments and a post-contact scatter of ceramic fragments. Site 41BX988 is a post-contact artifact scatter associated with the Laborers Shack on the Perez Ranch, portions of which have been both determined eligible and ineligible for the NRHP and is also a designated SAL. Site 41BX652 is an SAL with both pre-contact and post-contact components. The pre-contact component is a campsite with burned rock, debitage, projectile points, and a Leon Plain ceramic fragment. The post-contact component includes a ceramic fragment and a possible French/Spanish colonial era component. Site 41BX346 is crossed by Alternative Routes C, D, E, F, G, H, I, and J. Sites 41BX533, 41BX652, and 41BX988 are crossed by Alternative Routes AE, AF, and AG. Site 41BX1579 is a pre-contact campsite that is crossed by Alternative Routes K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, and AD.

Of the remaining sites crossed by the alternative route centerlines or ROWs, one site (41BX860), and portions of 41BX1715 have been determined ineligible for listing on the NRHP. Site 41BX860 is a post-contact residential complex with three residential structures and several associated support structures/outbuildings, abandoned dirt roads, an earthen dam, and a pond crossed by Alternative Routes C, D, E, F, G, H, I, and J. Site 41BX1715 is a pre-contact lithic scatter crossed by Alternative Routes B, C, D, E, F, G, and H.

Seventeen of the archeological sites crossed by the alternative route centerlines or ROWs have not been formally evaluated for listing on the NRHP. Sites 41AT28, 41AT282, 41BX534, 41BX541, 41BX552, 41BX855, and 41BX854 are pre-contact lithic scatters. Sites 41BX551, 41BX536, 41BX656, 41BX658, 41BX850, and 41BX856 are pre-contact campsites with burned rock and debitage and/or stone tools. Site 41BX871 is a Late Prehistoric campsite with burned rock, debitage, ceramics and a mollusk shell. Site 41BX680 is the post-contact Talon historic river crossing.

Sites 41AT52 and 41BX863 have pre- and post-contact components. Site 41AT52 is a pre-contact lithic scatter and scatter of post-contact ceramic sherds. Site 41BX863 is a pre-contact-contact (Late Prehistoric) campsite with burned rock, debitage, and ceramics and a post-contact homestead with associated scatter of brick, glass, simple lead shot, cut nails, and ceramics.

Sites 41AT52 is crossed by Alternative Routes I, K, P, Q, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, and AH; and 41AT282 is crossed by Alternative Routes N, Z, and AA. Sites 41BX551, 41BX856, and 41BX871 are crossed by Alternative Route AH; and Sites 41BX534, 41BX536, 41BX541 are crossed by Alternative Route L. Sites 41BX552, 41BX854, 41BX855 are crossed by Alternative Route J; 41BX553 is crossed by Alternative Routes A, B, and AH; and 41BX680 and 41BX863 are crossed by Alternative Routes A and B. Sites 41BX656, 41BX658, and 41BX676 are crossed by Alternative Routes AE, AF, and AG. Site 41BX850 is crossed by Alternative Routes B and J; and is also approximately 847 feet from Alternative Route A. A total of 50 additional sites are located within 1,000 feet of the Alternative Routes and are summarized below (Table 4-6).

During the public meetings three areas of archeological concern (AVAR_1, AVAR_2, and KH1) were brought to POWER's attention. Recent surveys that identified areas associated with the Battle of Medina provided to POWER and were taken into consideration during the alternative routing and HPA development phases of the EA. Area of concern KH1 (41AT307) is crossed by the ROW of Alternative Routes V, W, X, Y, AA, and AD. This area has received a site trinomial number (41AT307) but is not yet included in the TASA. Area of concern AVAR_1 is approximately 632 feet from Alternative Routes AF and AG; and AVAR_2 is approximately 848 feet from Alternative Route AE.

TABLE 4-6 ARCHEOLOGICAL SITES RECORDS WITHIN 1000 FEET OF THE ALTERNATIVE ROUTES

TRINOMIAL / OTHER ID	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
41AT28	undetermined	0	pre-contact lithic scatter	C
41AT34	undetermined	455	pre-contact lithic scatter	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH
41AT42	undetermined	91	pre-contact lithic scatter	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AG
41AT52	undetermined	0	pre-contact lithic scatter; post-contact scatter of ceramic sherds	I, K, P, Q, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH
41AT63	undetermined	718	pre-contact lithic scatter	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AG
41AT64	undetermined	962	pre-contact lithic scatter	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AG
41AT65	undetermined	717	pre-contact biface and flake	I, K, P, Q, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AG
41AT66	undetermined	623	pre-contact lithic scatter	I, K, P, Q, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AG
41AT254	undetermined	402	pre-contact lithic scatter	F, O, P

TABLE 4-6 ARCHEOLOGICAL SITES RECORDS WITHIN 1000 FEET OF THE ALTERNATIVE ROUTES

TRINOMIAL / OTHER ID	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
41AT263	undetermined	839	pre-contact campsite with debitage and a mussel shell	E, J, AH
41AT282	undetermined	30	pre-contact lithic scatter	N, Z, AA
41BX345	undetermined	782	post-contact concrete house foundation with trash scatter and irrigation channels (Ivey and Fox 1999)	AH
41BX346	eligible*	36	pre-contact campsite with burned rock, debitage and a biface; post-contact artifact scatter	C, D, E, F, G, H, I, J
41BX347	eligible	313	pre-contact lithic scatter; Two post-contact structures dating to the 1940s to 1950s	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD
41BX349	ineligible*	167	no site descriptive data available on the TASA	AE, AF, AG
41BX521	undetermined	214	post-contact Oak Island cemetery	M, N, O, P, Q, R, S, T
41BX527	undetermined	746	post-contact structures and ceramics	A, B
41BX528	undetermined	656	pre-contact lithic scatter and ceramic fragments	A, B
41BX529	undetermined	807	post-contact cemetery	A, B
41BX530	undetermined	354	pre-contact campsite with burned rock, debitage and ceramics	AE, AF, AG
41BX533	eligible	0	pre-contact campsite with burned rock, debitage, Early Triangular dart point, and mussel shell fragments; post-contact ceramic fragments	AE, AF, AG
41BX534	undetermined	0	pre-contact lithic scatter with Ensor and	L
41BX536	undetermined	0	pre-contact campsite with burned rock, projectile point fragment, abrader, and debitage	L
41BX541	undetermined	0	pre-contact lithic scatter	L
41BX551	undetermined	0	pre-contact campsite with burned rock concentrations, scatter of burned rock, debitage, mano, and core	AH
41BX552	undetermined	34	pre-contact lithic scatter with debitage and Travis-like dart point	J
		805		B
41BX553	undetermined	4	post-contact cut limestone and adobe structure	A, B, AH
41BX554	undetermined	81	pre-contact lithic scatter with debitage and a Guadalupe tool	A, B
41BX652	eligible/SAL	0	pre-contact campsite with burned rock concentrations and scatters, debitage, projectile points, a Leon Plain ceramic fragment; post-contact ceramic fragment and a possible French/Spanish colonial component	AE, AF, AG

TABLE 4-6 ARCHEOLOGICAL SITES RECORDS WITHIN 1000 FEET OF THE ALTERNATIVE ROUTES

TRINOMIAL / OTHER ID	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
41BX653	Undetermined/SAL	275	pre-contact campsite with burned rock, Montell projectile point, biface fragments, and debitage	AE, AF, AG
41BX656	undetermined	0	pre-contact campsite with burned rock concentrations and scatters, and debitage	AE, AF, AG
41BX658	undetermined	5	pre-contact campsite with burned rock and debitage	AE, AF, AG
41BX659	ineligible	290	pre-contact campsite with burned rock and debitage	AE, AF, AG
41BX666	undetermined	119	pre-contact lithic scatter; post-contact remains of tenant homes	AE, AF, AG
41BX668	undetermined	160	pre-contact campsite with burned rock and debitage	J
		386		AH
41BX669	eligible (1993) undetermined (1994) /SAL	562	pre-contact campsite with two hearths and lithic scatter; post-contact structural remains of a stone house and barn, a cistern, and artifacts scatter of domestic and construction materials	AE, AF, AG
41BX670	undetermined	735	post-contact ranch complex	AH
41BX675	eligible/SAL	225	post-contact Thompson Cemetery	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD
41BX676	undetermined	154	post-contact historical cemetery thought to be the burial place of several ranch hands who succumbed to a 1900s cholera epidemic; the location and descriptive information are from an oral interview with the landowner	AE, AF, AG
41BX680	undetermined	56	post-contact Talon historic river crossing (Carlson et al. 2008)	A, B
41BX835	ineligible*	772	pre-contact campsite with burned rock, debitage, and a mussel shell	L
41BX836	undetermined	593	post-contact incised petroglyphs including names, initials, and dates	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD
41BX837	eligible	227	pre-contact campsite with burned rock, debitage, scraper, and shell; post-contact cemetery, artifacts scatter of ceramics, glass, and metal and the remains of a possible foundation	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD
41BX847	undetermined	443	pre-contact campsite with burned rock, debitage, and shell	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD
41BX848	undetermined	984	pre-contact campsite with debitage and mussel shell	A, B, C, D, E, F, G, H, I
41BX849	undetermined	118	pre-contact campsite with burned rock, debitage, and a projectile point	B, J
41BX850	undetermined	27	pre-contact campsite with burned rock and lithic scatter	B, J
		847		A
41BX851	undetermined	879	pre-contact campsite with burned rock	B, J

TABLE 4-6 ARCHEOLOGICAL SITES RECORDS WITHIN 1000 FEET OF THE ALTERNATIVE ROUTES

TRINOMIAL / OTHER ID	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
			and lithic scatter	
41BX852	ineligible	428	pre-contact campsite with debitage and shell	J
		526		B
41BX853	undetermined	114	pre-contact campsite with burned rock, debitage, stone tools, and conch shell pendant fragment	J
		965		B
41BX854	undetermined	40	pre-contact lithic scatter with an Edwards or Scallorn projectile point and Bulverde-like projectile point	J
41BX855	undetermined	0	pre-contact lithic scatter	J
		514		AH
41BX856	undetermined	0	pre-contact campsite with burned rock, debitage, and a biface	AH
		137		J
41BX857	eligible/SAL	969	Palo Alto Road river crossing remains with gravel, concrete, metal, and glass	C, D, E, F, G, H, I, J
41BX858	undetermined	338	pre-contact campsite with burned rock, debitage, and a scraper tool	C, D, E, F, G, H, I, J
41BX860	ineligible	0	post-contact residential complex with three residential structures and several associated support structures/outbuildings abandoned dirt roadways, an earthen dam, and a pond	C, D, E, F, G, H, I, J
41BX861	ineligible*	428	pre-contact lithic scatter	C, D, E, F, G, H, I, J
41BX862	undetermined	961	pre-contact campsite with a possible hearth, burned rock, and debitage	A, B
41BX863	undetermined	0	pre-contact campsite with burned rock, debitage, and ceramics; post-contact homestead with machine-made brick, glass, simple lead shot, cut nails, and ceramics. Site is near crossing shown on Austin's maps of 1822 and 1829 associated with the Presidio del Rio Grande Road	A, B
41BX864	undetermined	162	pre-contact campsite with burned rock and debitage	A, B
41BX871	undetermined	62	pre-contact campsite with burned rock, ceramics, mollusk shell, and debitage	AH
41BX872	undetermined	123	pre-contact campsite with possible hearths and burned rock; debitage, and shell; post-contact trash dump with glass, ceramics, and metal	AH
41BX915	undetermined	823	pre-contact campsite with burned rock and lithic scatter	AE, AF, AG
41BX987	undetermined	267	post-contact trash dump associated two structures visible on 1938 aerial photos	C, D, E, F, G, H, I, J
41BX988	eligible*/ineligible*/SAL	0	post-contact scatter of glass, ceramics, and wire nails associated with the Laborers Shack on the Perez Ranch	AE, AF, AG

TABLE 4-6 ARCHEOLOGICAL SITES RECORDS WITHIN 1000 FEET OF THE ALTERNATIVE ROUTES

TRINOMIAL / OTHER ID	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
41BX989	undetermined	752	post-contact artifact scatter of glass, ceramics, cans, and car parts	L
41BX1574	ineligible	284	post-contact farmstead	AE, AF, AG
41BX1579	eligible	0	pre-contact campsite with lithic scatter and burned rock mussel shell	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD
41BX1702	ineligible	754	pre-contact lithic scatter	A, I, K
41BX1714	ineligible*	357	pre-contact lithic scatter	B, C, D, E, F, G, H
41BX1715	ineligible*	0	pre-contact lithic scatter	B, C, D, E, F, G, H
41BX1838	undetermined	661	post-contact farmstead	AH
41BX1855	ineligible*	89	pre-contact campsite with possible burned rock and lithic scatter	AH
41BX2399	undetermined	873	post-contact glass and ceramic scatter	AE, AF, AG
41BX2464	undetermined	562	pre-contact lithic procurement area and lithic scatter	C, D, E, F, G, H, I, J
		730		A
41BX2528	ineligible	567	post-contact farmstead	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG
		674		C, D, E, F, G, H, I, J
		695		A, B, AH
AVAR_1	undetermined	632	post-contact battle remains associated with the Battle of Medina	AF, AG
AVAR_2	undetermined	848	post-contact battle remains associated with the Battle of Medina	AE
41AT307 (KH1)	undetermined	74	a single post-contact pewter 13 th regiment button suggesting the area was associated with the Battle of Medina	V, W, X, Y, AA, AD

Sources: Carlson et al. 2008; Ivey and Fox 1999; THC 2024b.

Notes: asterisk (*) = portions have been determined eligible and/or ineligible; bold entries are crossed by the alternative route centerlines.

Two properties determined eligible for listing on the NRHP (TxDOT 2024c) are within 1,000 feet of the alternative routes. The Theodore Herrmann Barn and Ruins are approximately 481 and 894 from Alternative Routes A and B and C, D, E, F, G, H, I, and J, respectfully. The Ruiz-Herrera House Farm and Ranch is approximately 755 feet from Alternative Route AH.

A total of 12 cemeteries are recorded within 1,000 feet of the alternative routes, including five archeological sites (Table 4-7). The Heath and Texas Safety Code states that a “property is considered to be dedicated cemetery property if: (1) one or more human burials are present on the property,” [Sec. 711.035(g)(1)], thus archeological sites where human remains or burials have been observed are discussed below. No cemeteries are crossed by the alternative routes.

The Barney Williams Cemetery and Brite Cemetery are approximately 900 feet and 185 feet from Alternative Routes AF and AG, respectfully. The Estrada Cemetery and Garcia Cemetery are approximately 982 feet and 663 feet from Alternative Routes A, C, H, O, P, Q, R, and S, respectfully. The First Memorial Cemetery is approximately 831 feet from Alternative Routes A, I, K, C, D, E, F, G, and H. The Gonzales/San Augustin Cemetery is approximately 418 feet from Alternate Routes V, W, X, Y, AA, AD, AE, and AG; and the Jourdanton City Cemetery is approximately 727 feet from Alternative Routes A, C, G, H, I, L, M, N, O, P, Q, R, AB, and AF.

Site 41BX521 is the archeological component of the post-contact Oak Island Cemetery (BX-C004) and is approximately 214 feet from Alternative Routes M, N, O, P, Q, R, S, and T. Site 41BX529 is a post-contact cemetery that is approximately 805 feet from Alternative Routes A and B; and 41BX675 is the Thompson Cemetery and is approximately 225 feet from Alternative Routes K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, and AD. Site 41BX675 is determined eligible for listing on the NRHP and is a designated SAL.

Site 41BX676 post-contact historical cemetery thought to be the burial place of several ranch hands who succumbed to a 1900s cholera epidemic; the location and descriptive information are from an oral interview with the landowner. The site location appears to be in a retention pond. The location of the cholera graves is most likely that of the Cholera Graves cemetery (BX-C193), which is not within 1,000 feet of the alternative routes. Site 41BX676 is approximately 154 feet from Alternative Routes AE, AF, and AG. Site 41BX837 is a pre-contact campsite with burned rock, debitage, scraper, and shell; and a post-contact cemetery, artifacts scatter and possible foundation remains. Site 41BX837 is approximately 227 feet from Alternative Routes K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, and AD and is determined eligible for listing on the NRHP and the remaining three have not been evaluated for listing on the NRHP.

TABLE 4-7 CEMETERIES RECORDED WITHIN 1000 FEET FROM THE ALTERNATIVE ROUTES

CEMETERY NAME/TRINOMIAL	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
Barney Williams Cemetery	undetermined	900	post-contact cemetery	AF, AG
Brite Cemetery	undetermined	185	post-contact cemetery	AE, AG
Estrada Cemetery	undetermined	982	post-contact cemetery	A, C, H, O, P, Q, R, S
First Memorial Cemetery	undetermined	831	post-contact cemetery	A, I, K, C, D, E, F, G, H
Garcia Cemetery	undetermined	663	post-contact cemetery	A, C, H, O, P, Q, R, S
Gonzales / San Augustin Cemetery	undetermined	418	post-contact cemetery	V, W, X, Y, AA, AD, AE, AG
Jourdanton City Cemetery	undetermined	727	post-contact cemetery	A, C, G, H, I, L, M, N, O, P, Q, R, AB, AF
Oak Island cemetery (41BX521)	undetermined	214	post-contact Oak Island cemetery	M, N, O, P, Q, R, S, T
41BX529	undetermined	805	post-contact cemetery	A, B
Thompson Cemetery (41BX675)	eligible/SAL	225	post-contact Thompson Cemetery	K, L, M, N, O, P, Q, R, S, T, U, V, W, X,

TABLE 4-7 CEMETERIES RECORDED WITHIN 1000 FEET FROM THE ALTERNATIVE ROUTES

CEMETERY NAME/TRINOMIAL	DETERMINATION OF ELIGIBILITY	DISTANCE (FT)	DESCRIPTION	ROUTE
				Y, Z, AA, AB, AC, AD
41BX676	undetermined	154	post-contact historical cemetery thought to be the burial place of several ranch hands who succumbed to a 1900s cholera epidemic; the location and descriptive information are from an oral interview with the landowner	AE, AF, AG
41BX837	eligible	227	pre-contact campsite with burned rock, debitage, scraper, and shell; post-contact cemetery, artifacts scatter of ceramics, glass, and metal and the remains of a possible foundation	K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD

Source(s); THC 2024a and 2024b.

No systematic cultural resource surveys have been conducted along the alternative routes. Thus, the potential for undiscovered cultural resources does exist along all alternative routes. To assess this potential, a review of geological, soils, and topographical maps was undertaken by a professional archeologist to identify areas along the alternative routes where unrecorded pre-contact archeological resources have a higher probability to occur. These HPAs for pre-contact archeological sites were identified near unnamed streams in the study area and adjacent to closed depressions that may have held fresh water. To facilitate the data evaluation and alternative route comparison, each HPA was mapped using GIS and the length of each alternative route crossing these areas was tabulated. HPA were mapped near previously recorded post-contact sites and NRHP properties, and near structures depicted on historic topographic maps.

All of the alternative routes cross HPAs for cultural resources. Alternative Routes W, AA, Y, and N cross the least amount of HPA, with 29.42, 29.56, 30.28, and 30.65 of HPA crossed, respectively. Alternative Routes E, D, B, and J cross the most HPA, with 39.47, 39.82, 40.08, 40.58 miles of HPA crossed, respectively. Table 4-1 shows the amount of HPA crossed by each alternative route.

This page left blank intentionally.

5.0 AGENCY CORRESPONDENCE

A list of federal, state, and local regulatory agencies, elected officials, and organizations was developed to receive a consultation letter regarding the Project. The purpose of the letter was to inform the various agencies and officials of the Project and provide them with an opportunity to provide information regarding resources and potential issues within the study area. Various federal, state, and local agencies and officials that may have potential concerns and/or regulatory permitting requirements for the proposed Project were contacted. POWER utilized websites and telephone confirmations to identify local officials. Copies of all correspondence with the various state/federal regulatory agencies and local/county officials and departments are included in Appendix A.

Federal, state, and local agencies/officials contacted include:

- Federal Aviation Administration (FAA)
- Federal Emergency Management Agency (FEMA) – Region 6
- National Park Service (NPS)
- Natural Resource Conservation Service (NRCS) – Texas Office
- United States Army Corps of Engineers (USACE) – Fort Worth District
- United States Department of Defense (DoD) Military Aviation and Installation Assurance Siting Clearinghouse
- United States Environmental Protection Agency (USEPA) – Region 6
- United States Fish and Wildlife Service (USFWS)
- Applicable United States Congressman
- Applicable Texas Senators
- Applicable Texas House Members
- Railroad Commission of Texas (RRC)
- Texas Commission on Environmental Quality (TCEQ)
- Texas Department of Transportation (TxDOT) – Aviation Division, Environmental Affairs Division, Planning & Programming, and San Antonio District Engineer
- Texas General Land Office (GLO)
- Texas Historical Commission (THC)
- Texas Parks and Wildlife Department (TPWD)
- Texas Water Development Board (TWDB)
- Atascosa County Judge and Commissioners Court
- Atascosa County Historical Commission
- Bexar County Judge and Commissioners Court
- Bexar County Economic Development

- Bexar County Flood Control
- Bexar County Historical Commission
- Bexar County Manager
- City of San Antonio Officials
- Alamo Area Council of Governments
- Alamo Soil and Water Conservation District
- Edwards Aquifer Authority Chairman
- San Antonio River Authority
- San Antonio World Heritage Office
- San Antonio Water System
- Charlotte Independent School District (ISD)
- East Central ISD
- Jourdanton ISD
- Pleasanton ISD
- Poteet ISD
- Somerset ISD
- Southside ISD
- Southwest ISD
- City of Christine Officials
- City of Jourdanton Officials
- City of Poteet Officials
- City of Sandy Oaks Officials
- City of Somerset Officials
- The Nature Conservancy – Texas
- Texas Land Trust Council
- Texas Land Conservancy (TLC)
- Texas Agricultural Land Trust
- Texas Cave Management Association

In addition to letters sent to the agencies listed, POWER also requested and reviewed TXNDD Element Occurrence Records from TPWD (TPWD 2024). POWER also requested and reviewed previously recorded archeological site information from TARL and reviewed the THC's TASA for additional cultural resource information. As of the date of this document, written responses to letters sent in relation to the study area that were received are listed and summarized below.

The FAA responded with a letter dated January 4, 2024, stating that if CPS Energy and STEC are planning to sponsor any construction or alternations which may affect navigable airspace, a FAA Form 7460-1 must be filled electronically via a website.

The FAA also responded with an email dated January 16, 2024, requesting that CPS Energy and STEC file electronically via a website if they want to submit an aeronautical study.

FEMA responded with an email dated December 19, 2023, stating that CPS Energy and STEC should coordinate with the local floodplain administrator to obtain floodplain permits where required.

The USACE Section 408 Coordinator responded with an email dated December 11, 2023, stating that they will need more information on the proposed alignment near Poteet and Pleasanton to determine if authorization under Section 14 of the Rivers and Harbors Act of 1899.

The USACE Forth Worth District Regulatory Division responded with an email dated December 12, 2023, assigning Project Number SWF-2023-005436 and a regulatory project manager to the Project.

The USACE Forth Worth District Regulatory Division responded with emails dated December 13, 2023, and January 2, 2024, asking if CPS Energy and STEC were requesting a preapplication meeting and if they could be of any assistance.

The USFWS Texas Coastal Ecological Services Field Office responded with a letter dated December 11, 2023, providing a list of the federally listed threatened and endangered species for the study area county. The USFWS also provided the definitions of the affected determinations and referenced the MBTA and BGEPA.

The THC responded with a letter dated January 16, 2024, stating that an archeological survey would be required. Many archeological sites have been recorded in the vicinity of the study area, including several with undetermined eligibility for listing on the NRHP. They also said that the area is considered high probability for precontact and historical sites and that a Texas Antiquities Permit would be required.

The TPWD responded with a letter dated January 25, 2024, providing several recommendations. In summary, TPWD recommended avoiding or minimizing potential impacts to water bodies, nesting migratory birds, listed or rare species, and native vegetation. The TPWD also recommended a list of beneficial management practices to follow.

The San Antonio Water Systems Letter responded with a letter dated February 14, 2024, stating that they had not identified any environmental, cultural, or land use constraints directly between the Project end points.

The San Antonio Planning Department responded with an email dated December 21, 2023, stating that any information needed may be obtained with the City of San Antonio's Development Services Department.

The Atascosa County Rural Development Department responded with an email dated January 8, 2024, stating that they may require floodplain and County ROW permits. They also agreed to provide information regarding major proposed development.

The Bexar County Development Services Engineer responded with an email dated December 19, 2023, stating there are no Land Use Restrictions imposed by the county within the unincorporated areas of Bexar County. They also provided a list of permits required for the county and a Master Development Plan Summary.

The City of Jourdanton Mayor responded with an email dated December 20, 2023, providing a list of constraints to consider when routing the Project.

The City of Poteet responded with an email dated January 12, 2024, providing a checklist for proposed projects in the city.

6.0 PUBLIC INVOLVEMENT

CPS Energy and STEC hosted two public open house meetings within the study area to solicit comments, concerns, and input from residents, landowners, public officials, and other interested parties. The purpose of the meetings were to:

- Promote a better understanding of the Project, including the purpose, need, potential benefits and impacts, and the PUC CCN application approval process.
- Inform the public with regard to the routing procedure, schedule, and decision-making process.
- Ensure that the decision-making process adequately identifies and considers the values and concerns of the public and community leaders.

The public meetings were held on April 2, 2024, at the Southside High School in San Antonio, Texas, and on April 4, 2024, at the Pleasanton High School in Pleasanton, Texas from 6:00 p.m. to 8:00 p.m. Invitation letters were sent to landowners who owned property within 500 feet from a preliminary alternative route segment. CPS Energy and STEC mailed approximately 2,700 invitation letters to landowners. Each landowner that received an invitation letter also received a map of the study area depicting the preliminary alternative route segments. Advertisements for the open houses were also published in the *Pleasanton Express* on March 27, 2024, and April 3, 2024, in the *San Antonio Express News* on March 24, 2024, and March 31, 2024, and in the *La Prensa* on March 24, 2024, and March 31, 2024.

At the meetings, engineers, GIS analysts, biologists, project managers, and regulatory professionals from CPS Energy, STEC, and POWER were available to answer questions regarding the Project. Manned information stations were set up that provided typical 345 kV pole types, a list of agencies contacted, land-use and environmental criteria for transmission lines, and an environmental and land use constraints map on aerial base. CPS Energy and STEC also provided three GIS interactive stations operated by POWER GIS analysts. These computer stations allowed attendees to view more-detailed digital maps of preliminary alternative route segments and submit comments digitally and spatially. The information station format is advantageous because it facilitates one-on-one discussions and encourages personalized landowner interactions.

Each individual in attendance was offered the opportunity to sign their name on the sign-in sheet and given three handouts. The first handout was an information brochure that provided general information about the Project. The second handout was a questionnaire that solicited comments on the Project and an evaluation of the information presented at the public meeting. Individuals were asked to fill out the questionnaire after visiting the information stations and speaking with POWER, CPS Energy, and STEC personnel. The third handout was a Frequently Asked Questions document providing an overview of the Project as well as a description of the regulatory

process. Copies of the public notice letter with map, brochure, questionnaire, and Frequently Asked Questions are located in Appendix B.

A total of 192 individuals signed in as attendees at the public meetings and 99 submitted questionnaire responses at or after the public meetings. Results from the questionnaires were reviewed and analyzed. Table 6-1 summarizes general response information from the questionnaires.

TABLE 6-1 GENERAL RESPONSE SUMMARY FROM QUESTIONNAIRES

GENERAL INFORMATION RESPONSES	PERCENTAGE (%) OF RESPONDENTS
Was the need for the project clearly explained?	
<i>Strongly Agree</i>	9%
<i>Agree</i>	24%
<i>Neutral</i>	34%
<i>Disagree</i>	10%
<i>Strongly Disagree</i>	15%
The project team responded to and answered questions about the Project.	
<i>Strongly Agree</i>	5%
<i>Agree</i>	37%
<i>Neutral</i>	33%
<i>Disagree</i>	14%
<i>Strongly Disagree</i>	6%
The exhibits at the open house were helpful.	
<i>Strongly Agree</i>	15%
<i>Agree</i>	45%
<i>Neutral</i>	21%
<i>Disagree</i>	7%
<i>Strongly Disagree</i>	1%

Respondents were then presented with a list of 12 factors that are taken into consideration for a routing study (see a complete list of the criteria on the questionnaire in Appendix B). They were asked to rank each of these criteria, with **1** being the most important factor and **5** being the least important factor. Of those attendees that ranked the criteria, the three criteria that were ranked by the respondents as being the most important are listed in descending order:

- Impact to residences: 43 questionnaires (43%)
- Impact to trees and other vegetation: 7 questionnaires (7%)
- Visibility of structures: 6 questionnaires (6%)
- Parallel to existing roadway/highways: 6 questionnaires (6%)

Respondents were asked if there are other factors that should be considered when identifying and evaluating the preliminary alternative route segments and substation sites. Written responses included:

- Concerns about historical sites
- Concerns about health issues
- Concerns about floodplains
- Concerns about crossing property
- Concerns about trees and wildlife

Respondents were then asked if there are other features that should be added to the Land Use and Environmental Constraints map. Written responses included:

- Concerns about proximity to habitable structures
- Concerns about water wells
- Concerns about water features
- Concerns about future development

Respondents were asked to identify the preliminary alternative route segments that they most preferred and least preferred. Segment 107 received the most positive comments (8), followed by Segments 62 and 78 (7 each). Segments 46 and 64 received the most negative comments (9 each), followed by Segments 12 and 20 (6 each). Table 6-2 summarizes the preliminary alternative route segments that received the most responses to this question, both positive and negative.

TABLE 6-2 SEGMENT COMMENTS

SEGMENT	107	62	78	46	64	12	20
Positive Comments	8	7	7	2	0	0	0
Negative Concerns	0	0	0	9	9	6	6

When asked which of four situations applied to them, written responses were as follows:

- 74 indicated that a proposed segment is near their home/business
- 66 indicated that a proposed segment crosses their property
- 19 answered “Other”

Respondents were also asked if there was any other information, they would like the Project team to know or take into consideration when evaluating the Project, responses included:

- Concerns about existing vegetation and trees
- Concerns about wildlife and agriculture

- Concerns about flooding and erosion
- Concerns about health effects
- Concerns about property values

6.1 Modifications to the Preliminary Alternative Route Segments

Information received by CPS Energy, STEC, and POWER from the public, officials, and agencies resulted in modifications and deletions to the preliminary alternative route segments, which are described in detail below. The preliminary alternative segments shown at the open house meetings are presented in Figure 2-2. The primary alternative route segments resulting from the segment revisions described below are shown in Figure 2-3.

6.1.1 Segment Modifications

Segment 4 was modified by shifting the central portion to the east to avoid a constraint in the ROW (Figure 6-1).

Segment 12 was modified by shifting it to the south to avoid a solar development. As a result of shifting Segment 12, a node was added to the northern portion of Segment 22 dividing Segment 22 into Segments 22A and 22B (Figure 6-2).

The western portion of Segment 24 was modified by shifting it to the southeast to avoid a previously unknown constraint (Figure 6-3).

The central portion of Segment 49 was modified by shifting it to the north to avoid a newly constructed habitable structure (Figure 6-4).

The eastern portion of Segment 50 was modified by shifting it to the east to shorten the length of the segment. As a result of shifting Segment 50, a node was added to the southern portion of Segment 45 dividing Segment 45 into Segments 45A and 45B (Figure 6-5).

The western portion of Segment 53 was modified by shifting it to the north to avoid a previously unknown constraint. As a result of shifting Segment 53, the node was also shifted to the north expanding the length of Segment 52 and reducing the length of Segment 45B (Figure 6-6).

The southern portion of Segment 59 and all of Segment 65 were modified by shifting them to east to avoid a newly constructed expansion of a church facility. As a result of shifting Segment 65, a node was added to the western portion of Segment 68 dividing Segment 68 into Segments 68A and 68B. Modifying Segment 65 also resulted in making a slight modification to the node area between Segments 67 and 68A to better parallel an existing transmission line (Figure 6-7).

6.1.2 Segment Deletions

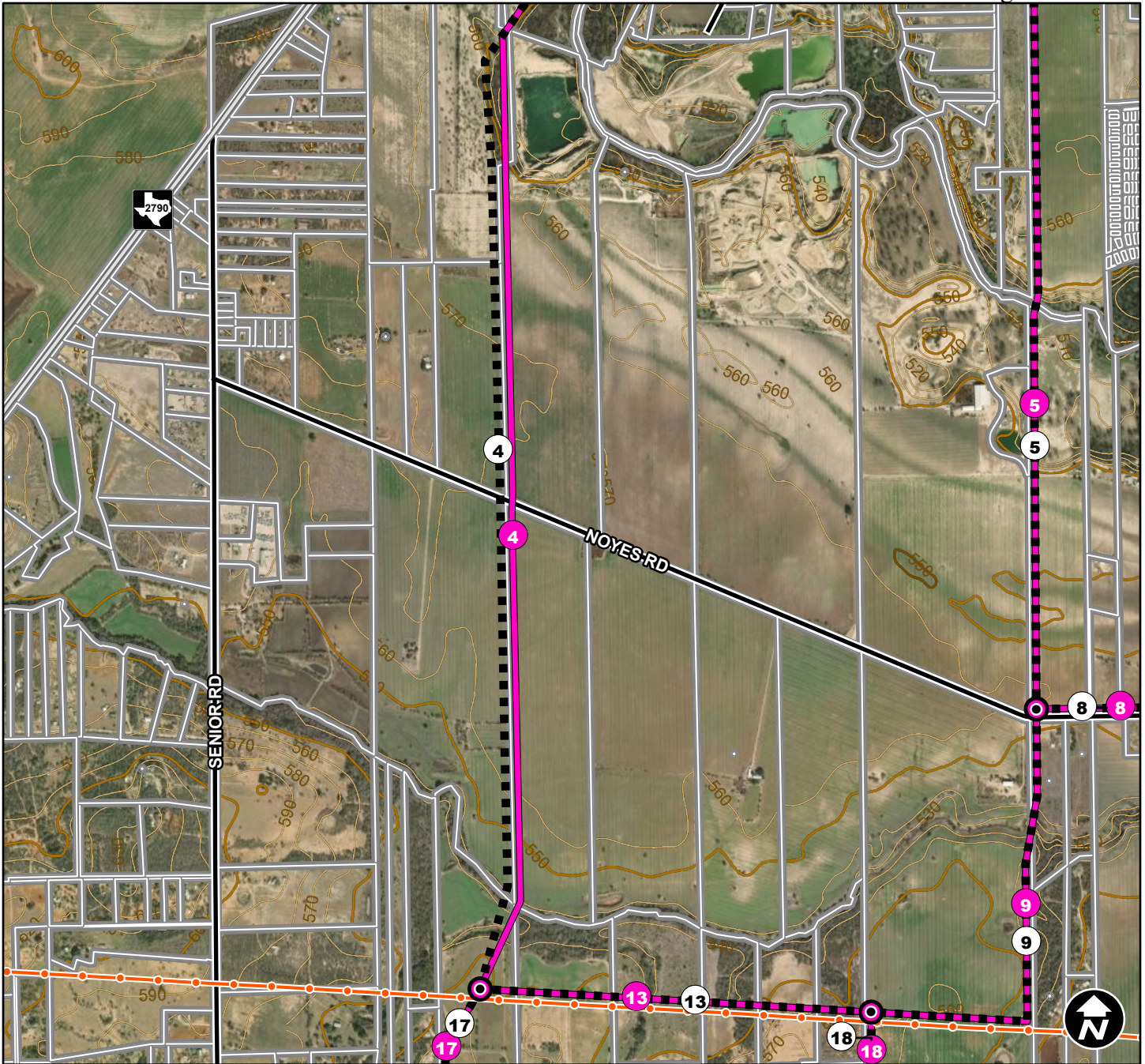
Segment 23 was originally proposed to cross an area containing a previously unknown constraint and was deleted from further consideration (Figure 6-8).

Segment 64 was originally proposed to cross an area south of County Road 304; however, when compared to Segment 67, which parallels an existing transmission line and is only one mile south of Segment 64, it was determined that Segment 64 offered no real benefit and was deleted from further consideration (Figure 6-9).

Segment 79 was originally proposed in the western portion of the study area. It was determined that the segment would not be forward progressing, added length, and provided no benefit. Therefore, it was deleted from further consideration (Figure 6-10).

Segment 103 was originally proposed in the southern portion of the study area. It was determined that the segment was not forward progressing, added length, and provided no benefit. Therefore, it was deleted from further consideration (Figure 6-11).

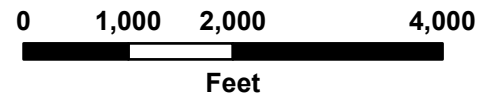
This page left blank intentionally.



Legend	
	Revised or New Alternative Route Segment
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Unchanged Alternative Route Segment Node Shown at Open House Meeting
	Resulting Alternative Route Segment Label
	Preliminary Alternative Route Segment Label Shown at Open House Meeting
	Parcel Boundary
	Property Boundary
	FM Road
	County / Local Road
	Existing 138kV Transmission Line
	10 foot Contour

Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-1
Modification of Segment 4
Following the Open House Meetings



Date: 8/13/2024

This page left blank intentionally.



Legend	
	Revised or New Alternative Route Segment
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Revised or New Alternative Route Segment Node
	Unchanged Alternative Route Segment Node Shown at Open House Meeting
	Resulting Alternative Route Segment Label
	Preliminary Alternative Route Segment Label Shown at Open House Meeting
	Parcel Boundary
	Property Boundary
	State Highway
	County / Local Road
	Approximate Boundaries of Developing Solar Facilities
	Existing Substations
	Existing 138kV Transmission Line
	Existing 345kV Transmission Line
	10 foot Contour

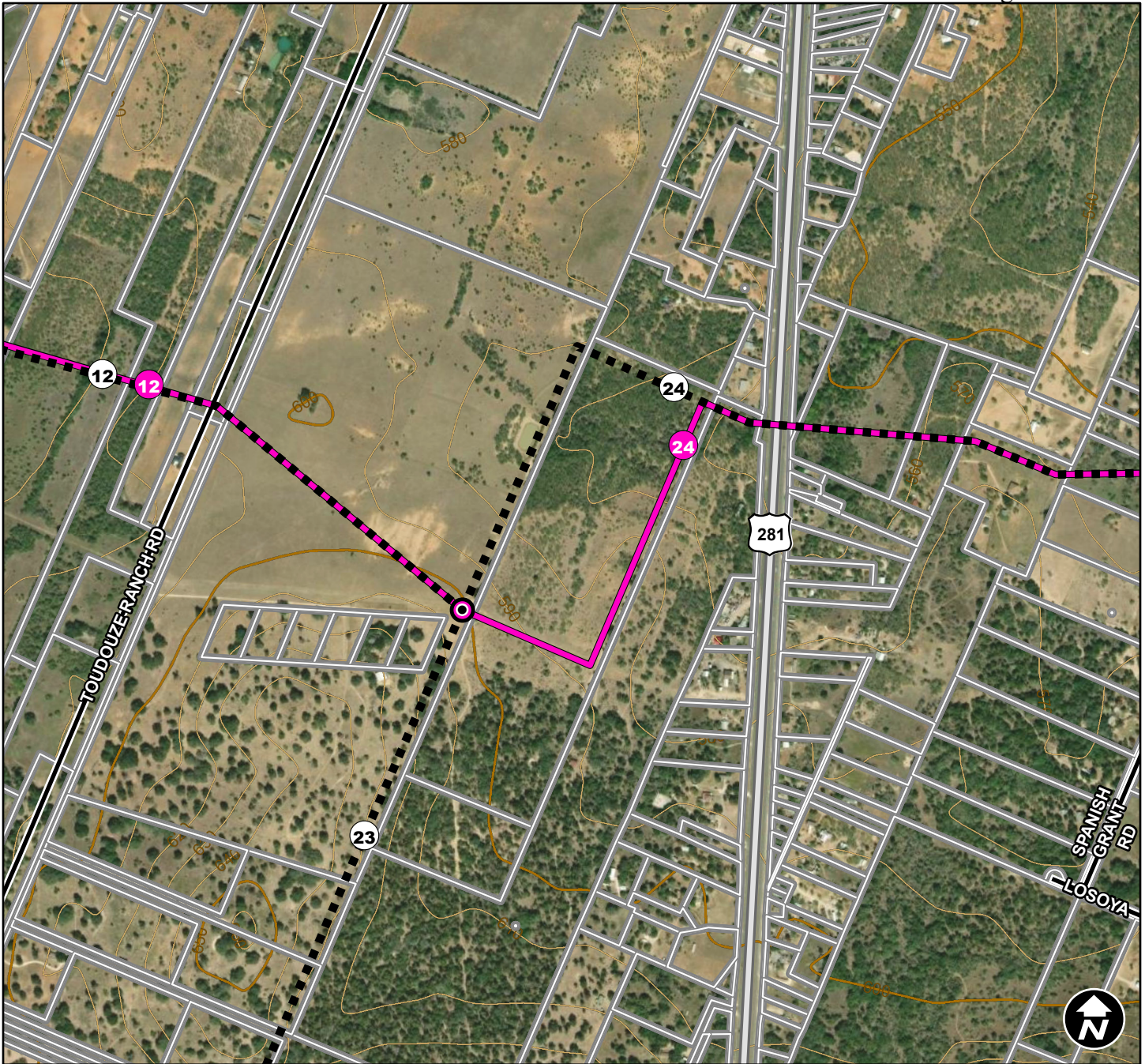
Howard Road to San Miguel 345 kV
Transmission Line Project














Figure 6-2
Modification of Segment 12;
Relabel of Northern Portion
of 22 as 22A;
Relabel of Southern Portion
of 22 as 22B
Following the Open House Meetings

0 1,000 2,000 4,000
Feet

Date: 8/13/2024

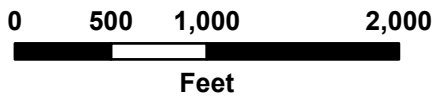
This page left blank intentionally.



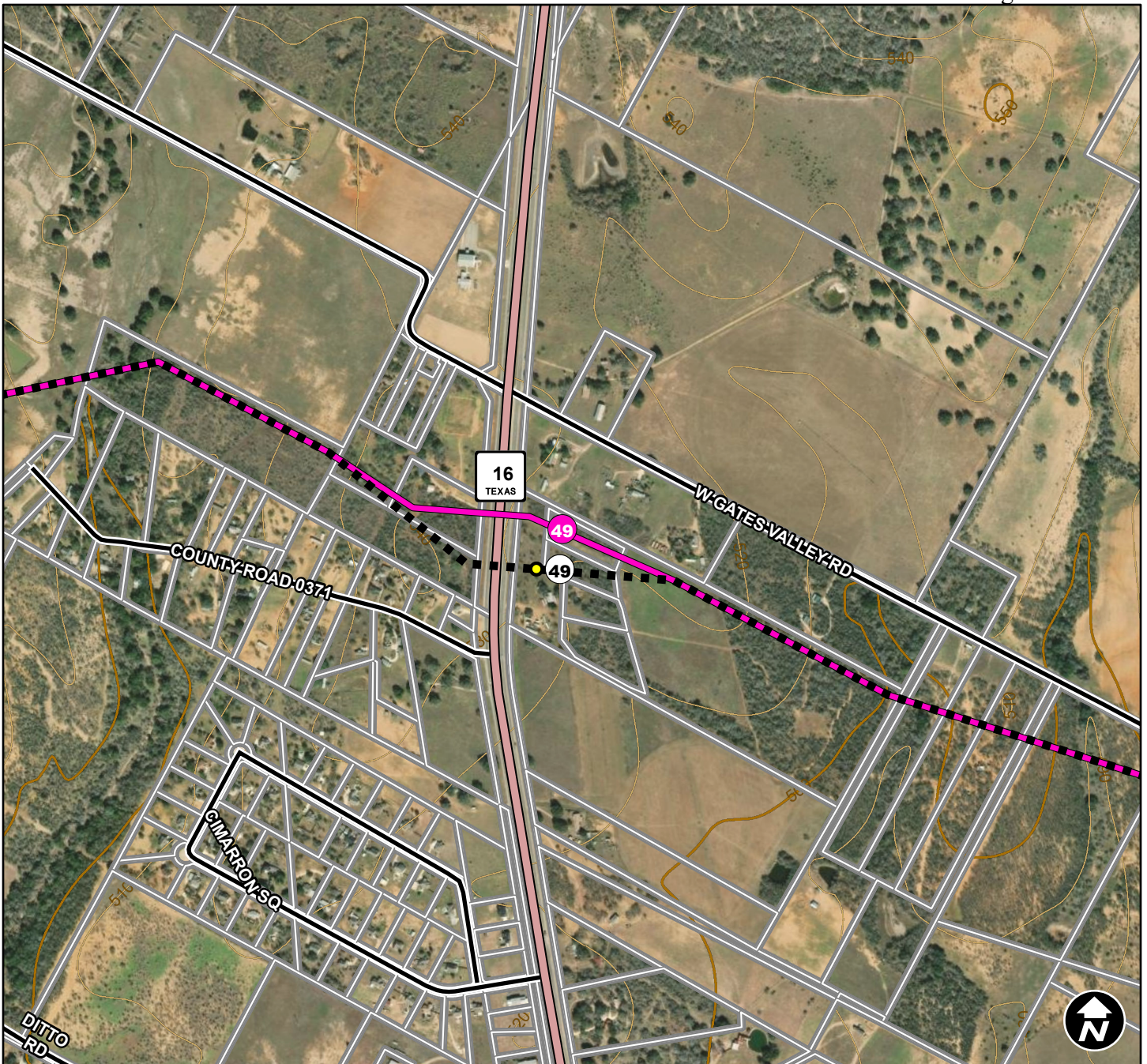
	Revised or New Alternative Route Segment		Parcel Boundary
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting		Property Boundary
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting		US Highway
	Unchanged Alternative Route Segment Node Shown at Open House Meeting		County / Local Road
	Resulting Alternative Route Segment Label		Existing 138kV Transmission Line
	Preliminary Alternative Route Segment Label Shown at Open House Meeting		Existing 345kV Transmission Line
			10 foot Contour

Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-3
Modification of Segment 24
Following the Open House Meetings



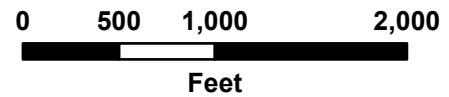
This page left blank intentionally.



<p>Legend</p> <ul style="list-style-type: none"> — Revised or New Alternative Route Segment - - - Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting - - - Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting ① Resulting Alternative Route Segment Label ① Preliminary Alternative Route Segment Label Shown at Open House Meeting 	<ul style="list-style-type: none"> Parcel Boundary Property Boundary ● New Habitable Structure 151 TEXAS State Highway — County / Local Road —●— Existing 138kV Transmission Line —●— Existing 345kV Transmission Line — 10 foot Contour
---	--

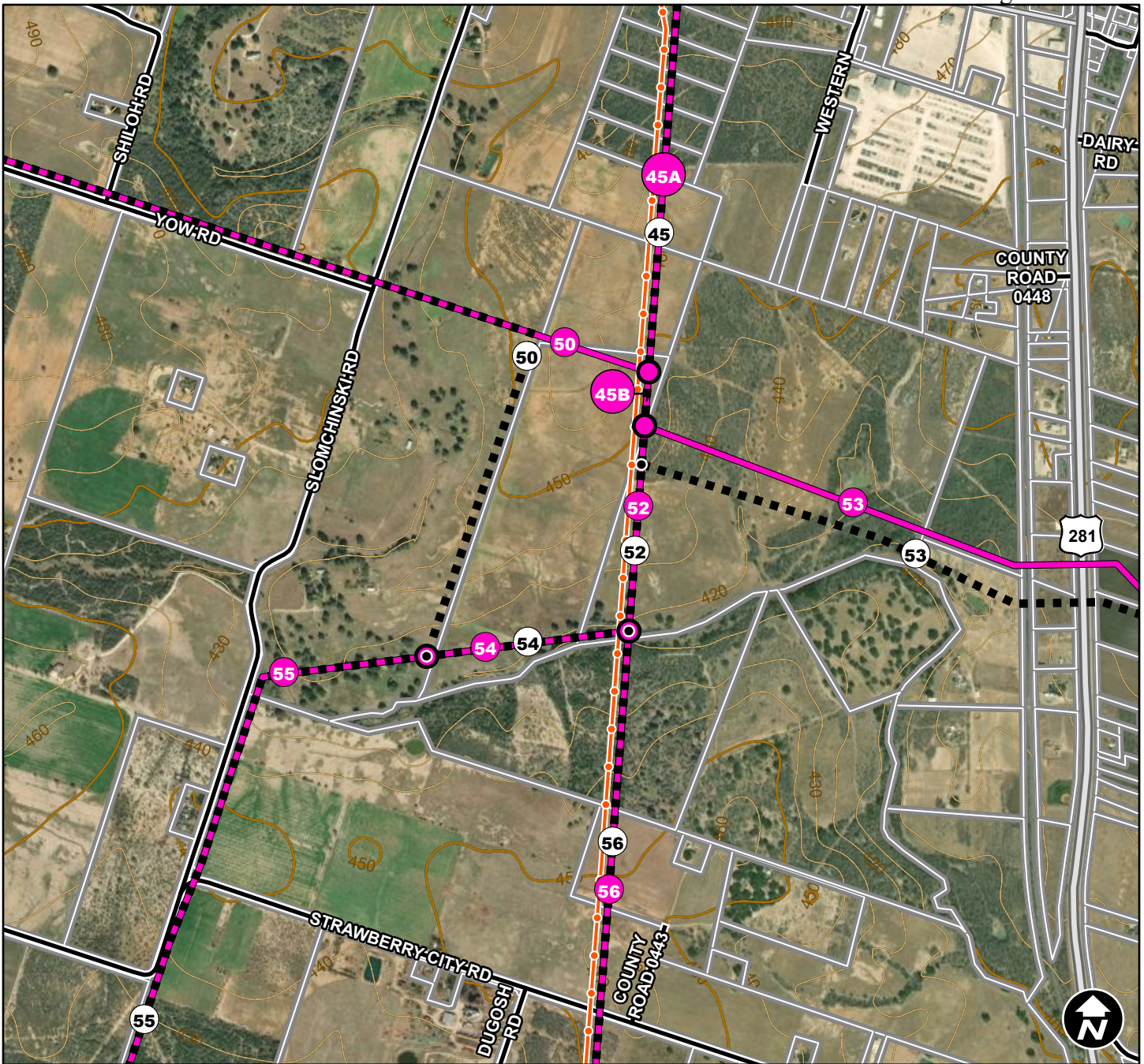
Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-4
Modification of Segment 49
Following the Open House Meetings



Date: 8/13/2024

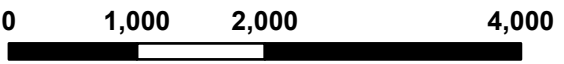
This page left blank intentionally.



Legend	
	Revised or New Alternative Route Segment
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Revised or New Alternative Route Segment Node
	Unchanged Alternative Route Segment Node Shown at Open House Meeting
	Preliminary Alternative Route Segment Node Shown at Open House Meeting
	Resulting Alternative Route Segment Label
	Preliminary Alternative Route Segment Label Shown at Open House Meeting
	Parcel Boundary
	Property Boundary
	US Highway
	FM Road
	County / Local Road
	Existing 138kV Transmission Line
	Existing 345kV Transmission Line
	10 foot Contour

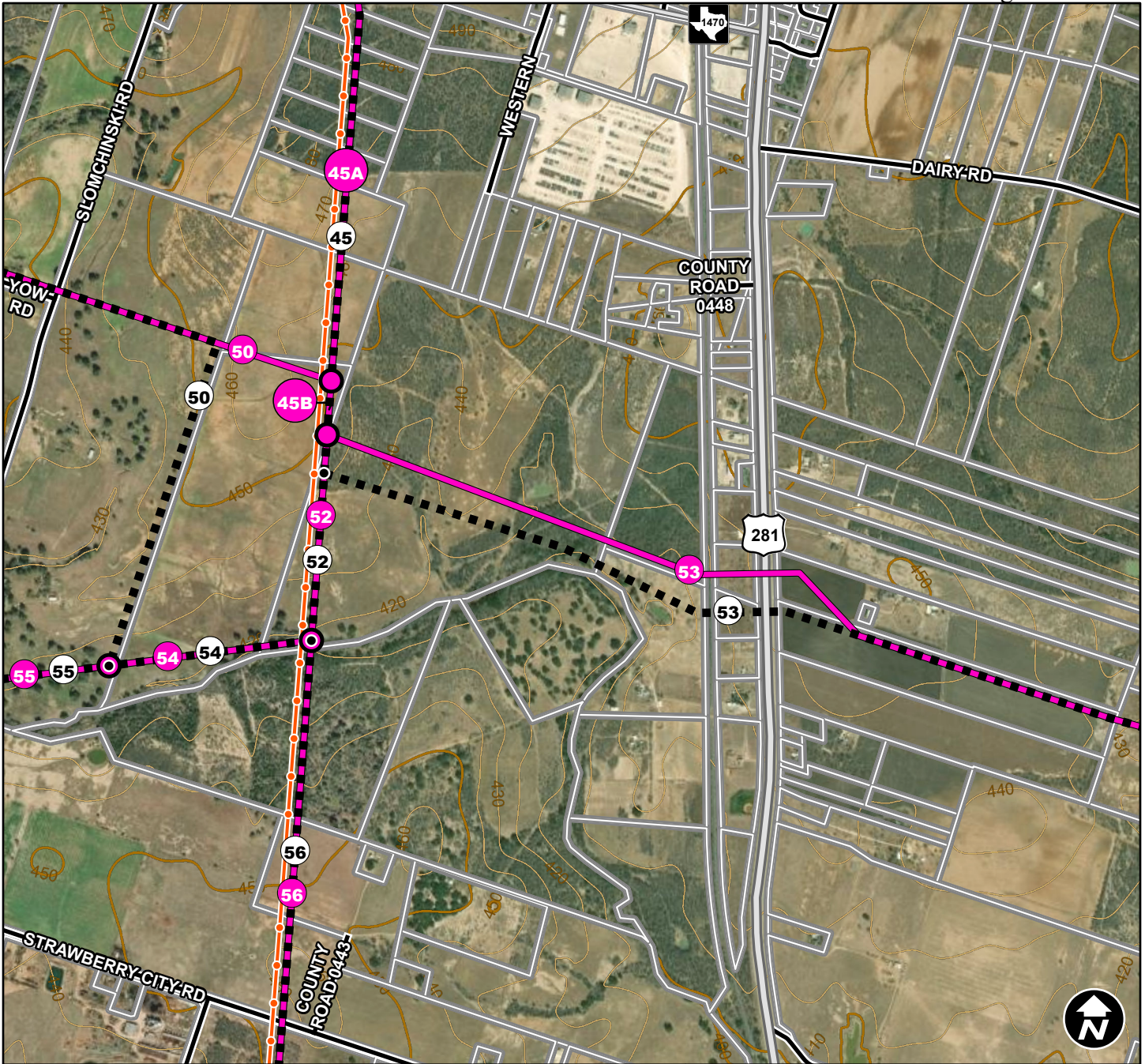
Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-5
Modification of Segment 50
Relabel of Northern Portion
of 45 as 45A;
Relabel of Southern Portion
of 45 as 45B
Following the Open House Meetings



Date: 8/13/2024

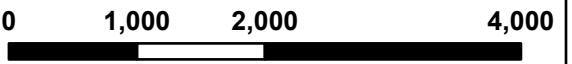
This page left blank intentionally.



Legend	
	Revised or New Alternative Route Segment
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Revised or New Alternative Route Segment Node
	Unchanged Alternative Route Segment Node Shown at Open House Meeting
	Preliminary Alternative Route Segment Node Shown at Open House Meeting
	Resulting Alternative Route Segment Label
	Preliminary Alternative Route Segment Label Shown at Open House Meeting
	Parcel Boundary
	Property Boundary
	US Highway
	FM Road
	County / Local Road
	Existing 138kV Transmission Line
	Existing 345kV Transmission Line
	10 foot Contour

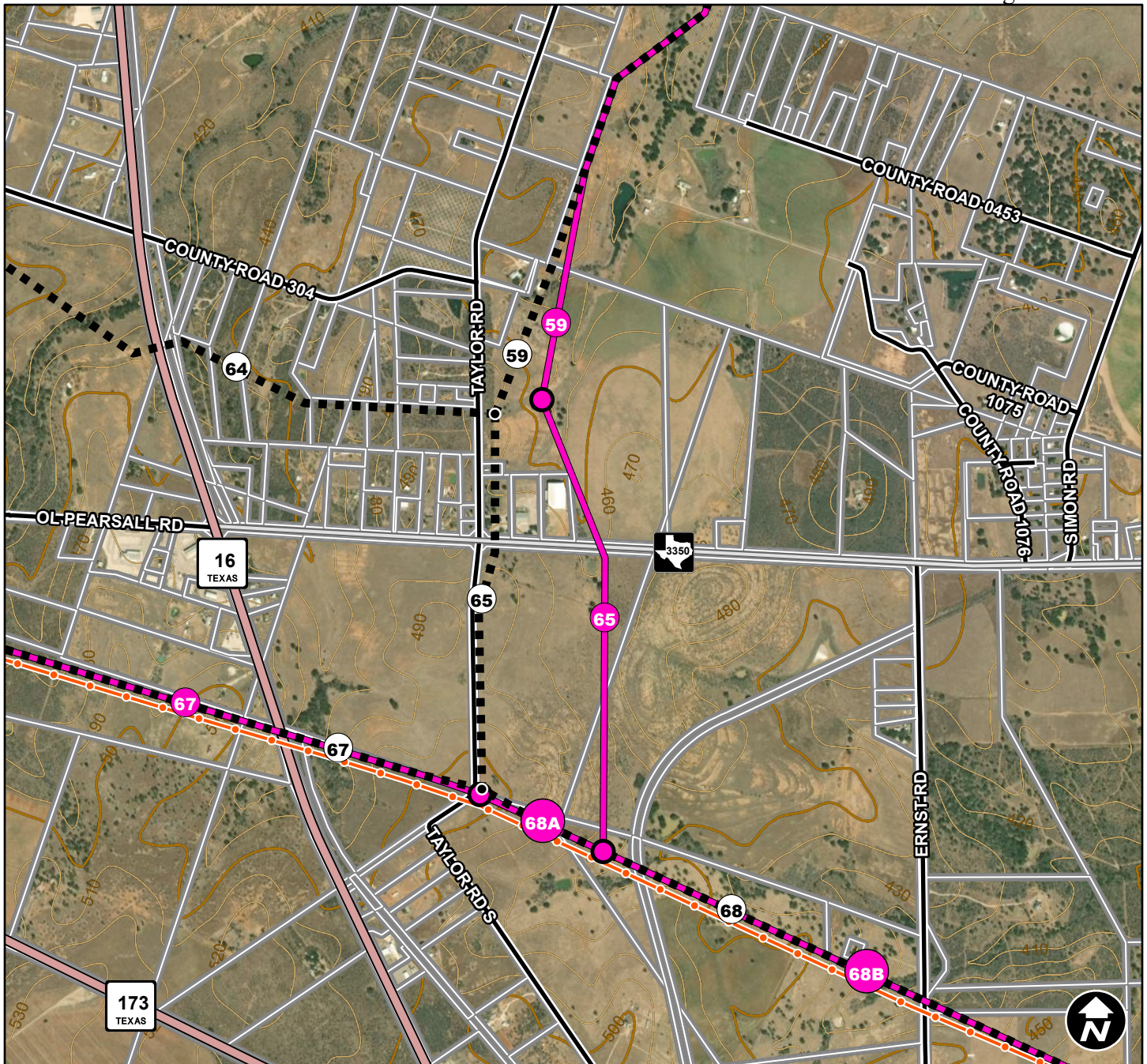
Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-6
Modification of Segment 53
Expanding Segment 52 and
Reducing Segment 45B
Following the Open House Meetings



Date: 8/13/2024

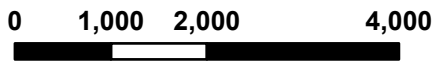
This page left blank intentionally.



Legend	
	Revised or New Alternative Route Segment
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting
	Revised or New Alternative Route Segment Node
	Preliminary Alternative Route Segment Node Shown at Open House Meeting
	Resulting Alternative Route Segment Label
	Preliminary Alternative Route Segment Label Shown at Open House Meeting
	Parcel Boundary
	Property Boundary
	State Highway
	FM Road
	County / Local Road
	Existing 138kV Transmission Line
	Existing 345kV Transmission Line
	10 foot Contour

Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-7
Modification of Segment 59 and 65;
Relabel of Western Portion
of 68 as 68A;
Relabel of Eastern Portion
of 68 as 68B
Following the Open House Meetings

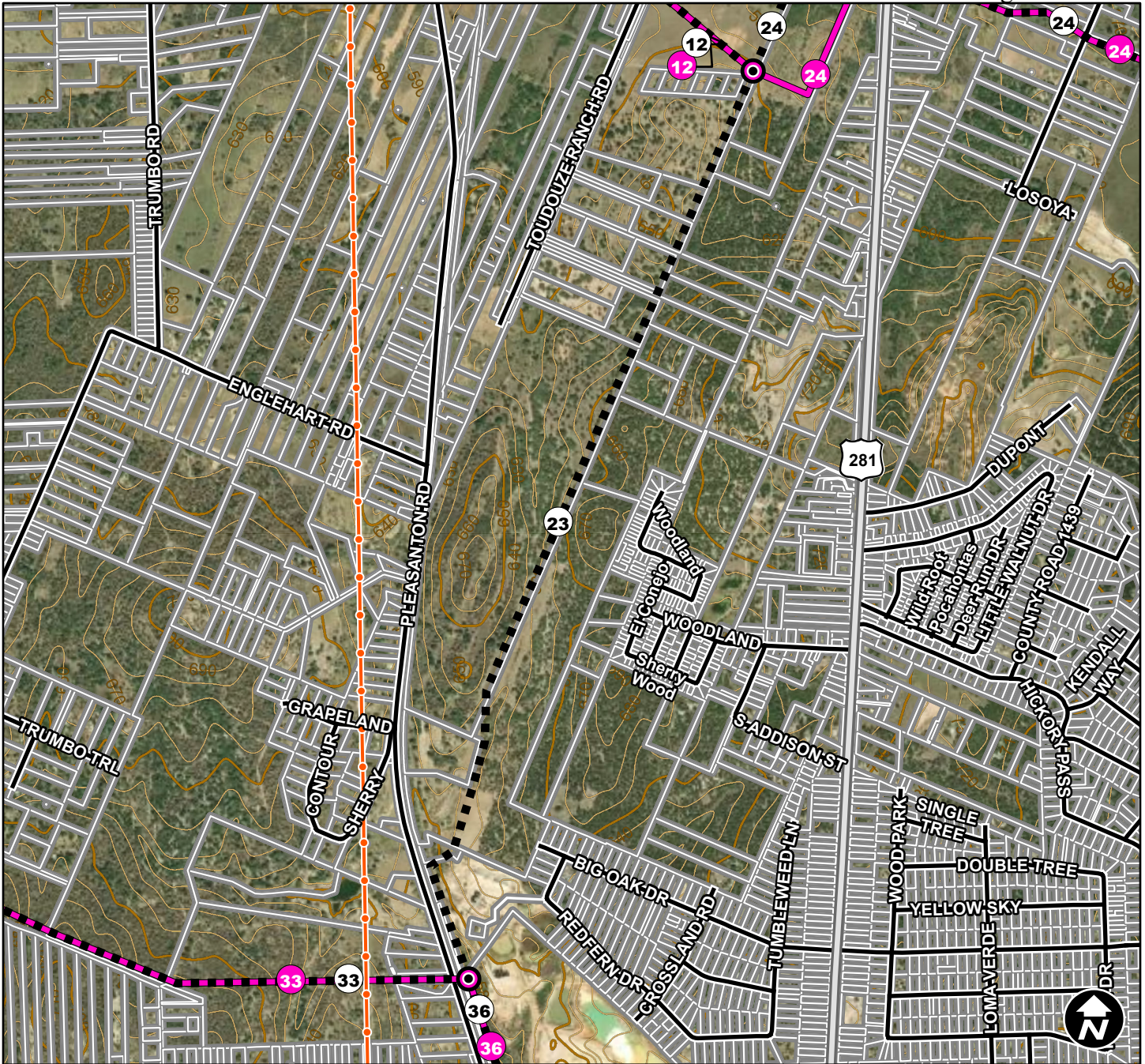


Feet



Date: 8/13/2024

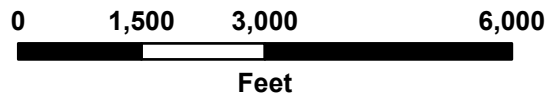
This page left blank intentionally.



	Revised or New Alternative Route Segment		Parcel Boundary
	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting		Property Boundary
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting		US Highway
	Unchanged Alternative Route Segment Node Shown at Open House Meeting		County / Local Road
	Resulting Alternative Route Segment Label		Existing 138kV Transmission Line
	Preliminary Alternative Route Segment Label Shown at Open House Meeting		

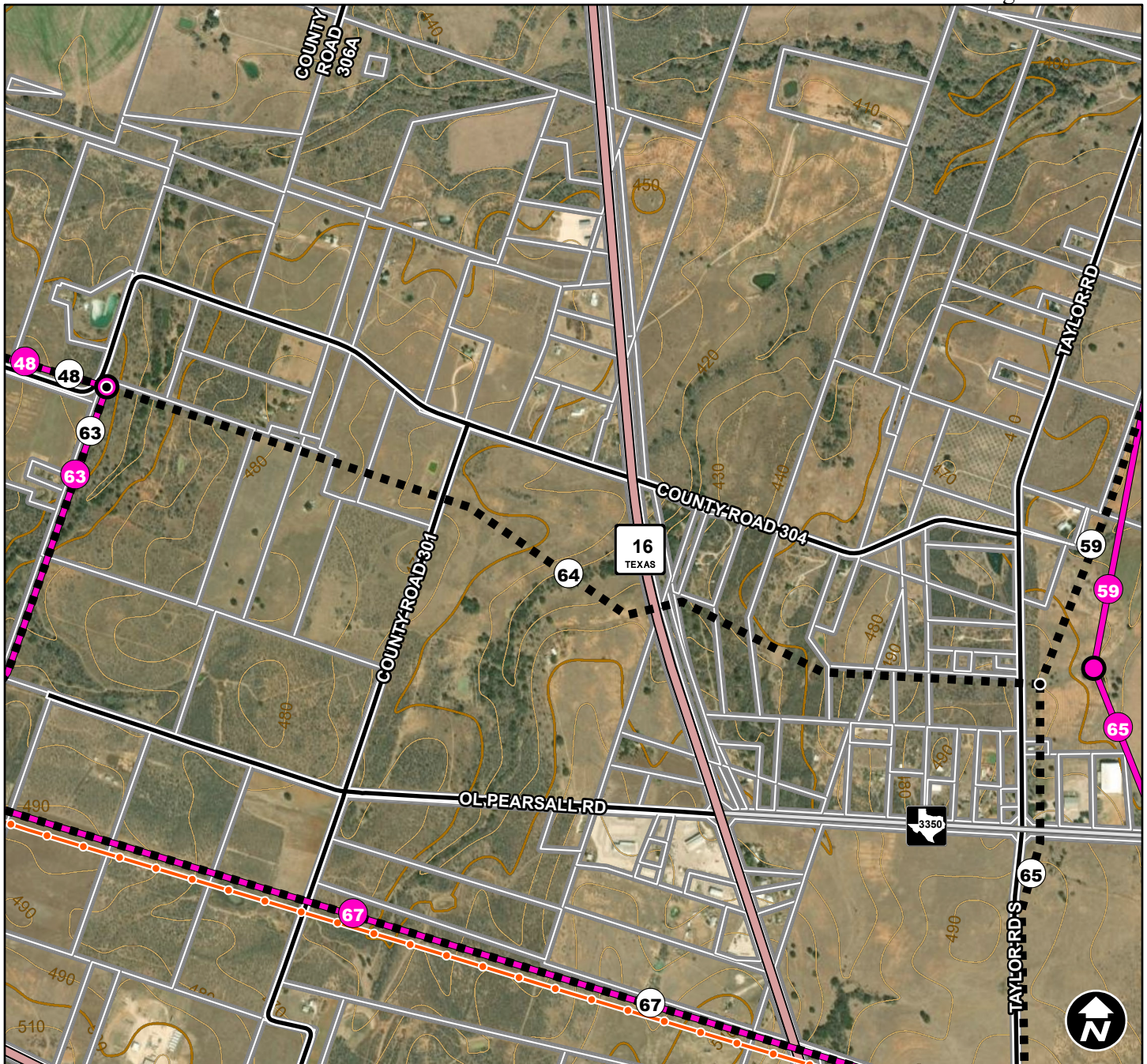
Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-8
Removal of Segment 23
Following the Open House Meetings



Date: 8/13/2024

This page left blank intentionally.



Legend

	Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting		Parcel Boundary
	Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting		Property Boundary
	Revised or New Alternative Route Segment Node		State Highway
	Unchanged Alternative Route Segment Node Shown at Open House Meeting		FM Road
	Preliminary Alternative Route Segment Node Shown at Open House Meeting		County / Local Road
	Resulting Alternative Route Segment Label		Existing 138kV Transmission Line
	Preliminary Alternative Route Segment Label Shown at Open House Meeting		Existing 345kV Transmission Line
			10 foot Contour

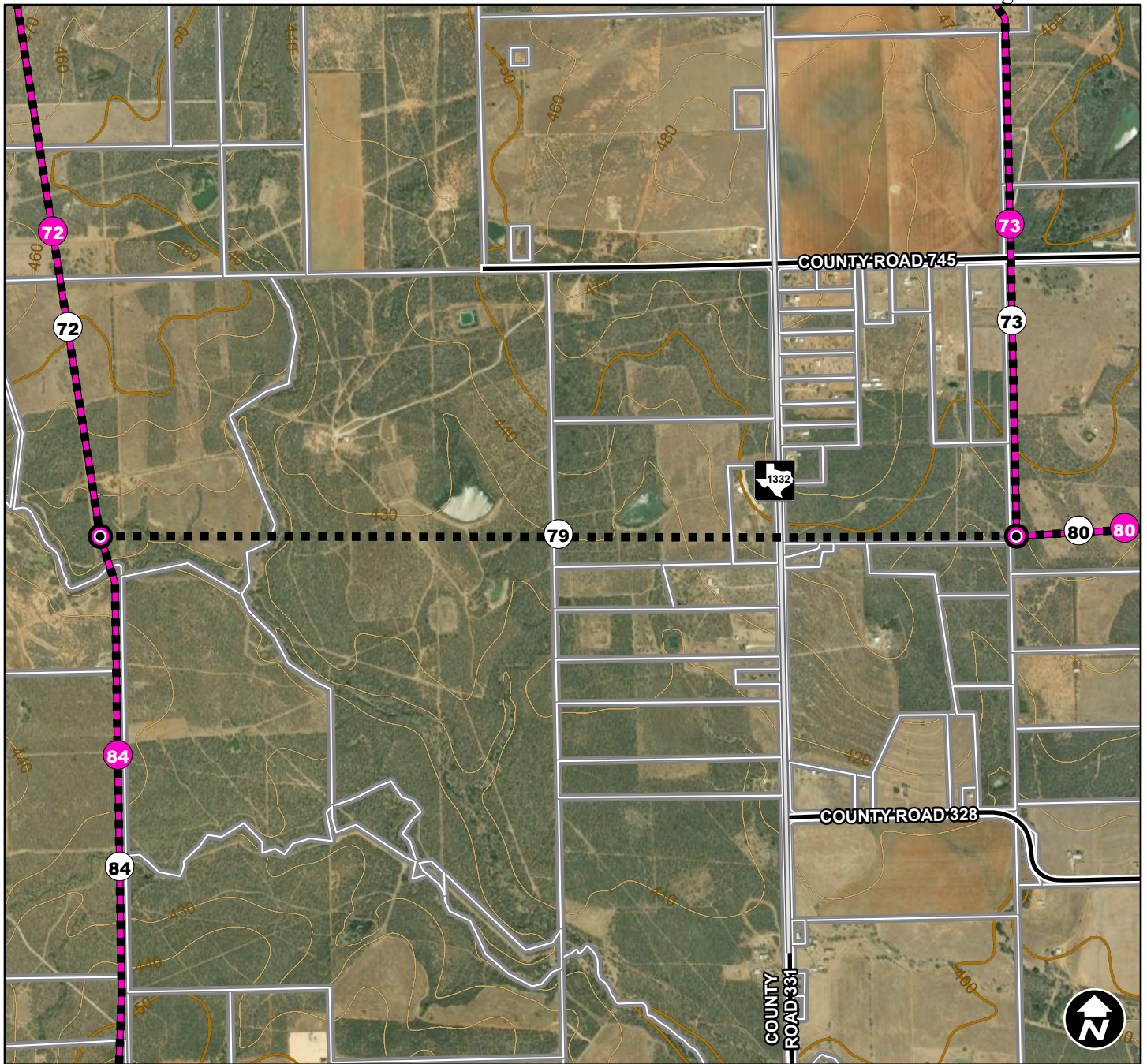
Howard Road to San Miguel 345 kV Transmission Line Project

Figure 6-9
Removal of Segment 64
Following the Open House Meetings

0 1,000 2,000 4,000
Feet

Date: 8/13/2024

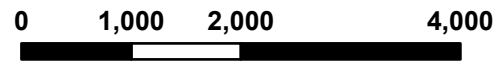
This page left blank intentionally.



<p>Legend</p> <ul style="list-style-type: none"> Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting Unchanged Alternative Route Segment Node Shown at Open House Meeting Resulting Alternative Route Segment Label Preliminary Alternative Route Segment Label Shown at Open House Meeting 	<ul style="list-style-type: none"> Parcel Boundary Property Boundary FM Road County / Local Road Existing 138kV Transmission Line Existing 345kV Transmission Line 10 foot Contour
--	--

Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-10
Removal of Segment 79
Following the Open House Meetings

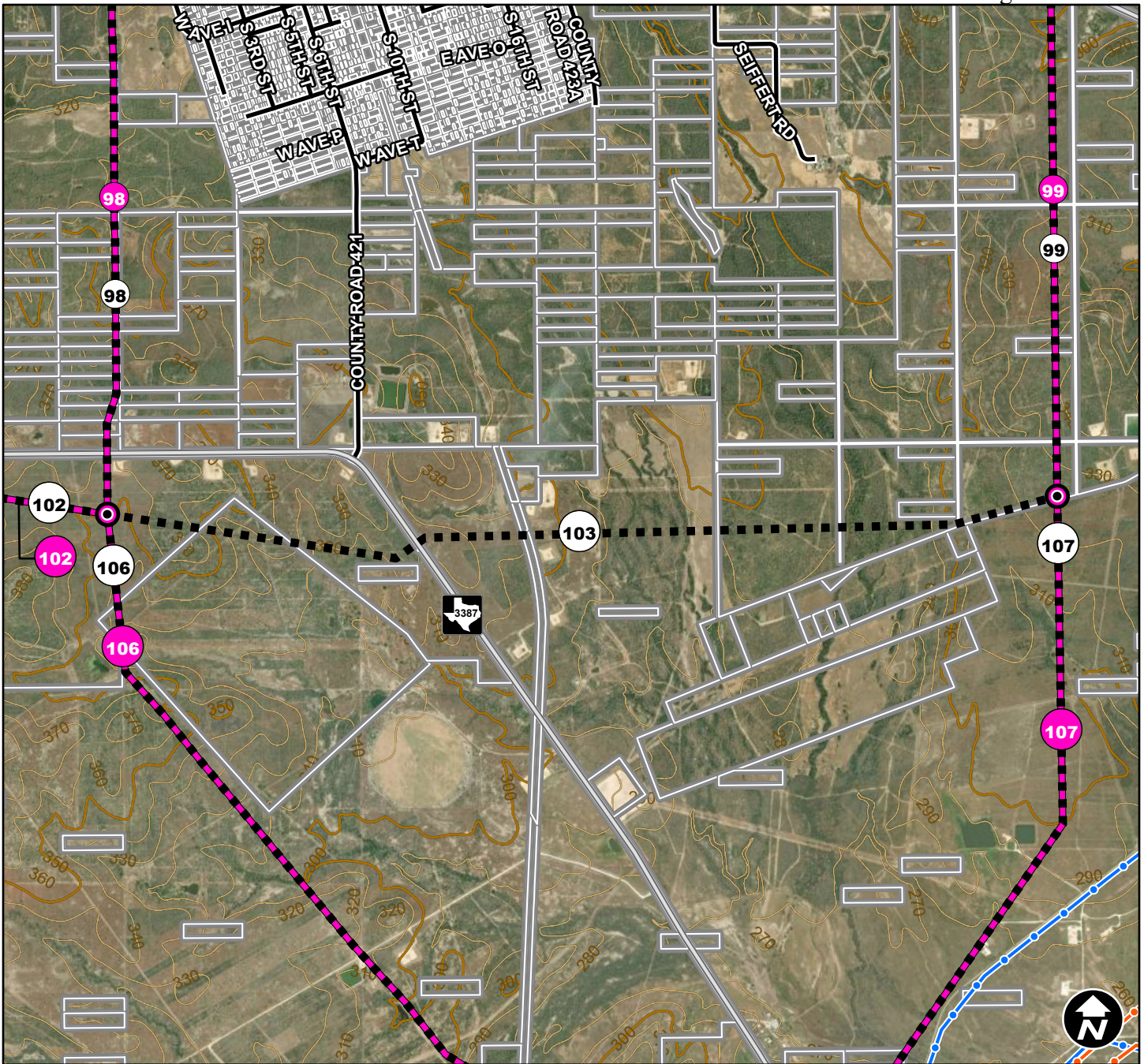


Feet



Date: 8/13/2024

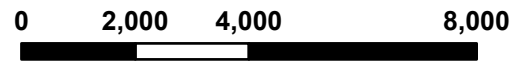
This page left blank intentionally.



<p>Legend</p> <ul style="list-style-type: none"> Unchanged Portion of Preliminary Alternative Route Segment Shown at Open House Meeting Removed Portion of Preliminary Alternative Route Segment Shown at Open House Meeting Unchanged Alternative Route Segment Node Shown at Open House Meeting Resulting Alternative Route Segment Label Preliminary Alternative Route Segment Label Shown at Open House Meeting 	<ul style="list-style-type: none"> Parcel Boundary Property Boundary FM Road County / Local Road Existing 138kV Transmission Line Existing 345kV Transmission Line 10 foot Contour
--	--

Howard Road to San Miguel 345 kV
Transmission Line Project

Figure 6-11
Removal of Segment 103
Following the Open House Meetings



Feet



Date: 8/13/2024

This page left blank intentionally.

7.0 LIST OF PREPARERS

This EA and Alternative Route Analysis was prepared for CPS Energy and STEC by POWER. A list of the POWER employees with primary responsibilities for the preparation of this document is presented below.

RESPONSIBILITY	NAME	TITLE
Project Manager	Lisa Barko Meaux	Sr. Project Manager I
Assistant Project Manager/ Project Coordinator	Denise Williams	Project Manager
Natural Resources	Daniel Ray Mikaela Egbert	Environmental Specialist III Environmental Specialist I
Land Use/Aesthetics	Ashley Brewer Katie Jordan Briana Henriques	Environmental Planner I Environmental Planner I Environmental Planner I
Cultural Resources	Darren Schubert Emily Duke	Project Manager II Cultural Resource Specialist I
Maps/Figures/Graphics	Gray Rackley Evan Doss	Senior GIS Analyst I GIS Analyst II

This page left blank intentionally.

8.0 REFERENCES CITED

- Alamo Area Council of Governments. 2023. Planning. <https://aacog.com/>. Accessed November 2023.
- Anderson, Andrew E. 1932. Artifacts of the Rio Grande Delta Region. *Bulletin of the Texas Archeological and Paleontological Society* 4:29-31.
- Arnold, K. A. 2001a. White-tailed Hawk. *The Texas Breeding Bird Atlas. Texas A&M University System, College Station and Corpus Christi, TX.* <https://txtbba.tamu.edu/species-accounts/white-tailed-hawk/http://txtbba.tamu.edu>. Accessed December 2023.
- _____. 2001b. Wood Stork. *The Texas Breeding Bird Atlas. Texas A&M University System, College Station and Corpus Christi, TX.* <https://txtbba.tamu.edu/species-accounts/wood-stork/>. Accessed December 2023.
- Arvin, J.C. 2007. Birds of the South Texas Brushlands. A Field Checklist. Texas Parks and Wildlife Department. Austin Texas. 20pp.
- Atascosa County 2023. Atascosa and McMullen Counties Hazard Mitigation Plan 2020. Atascosa McMullen Hazard Mitigation Plan for public review 4-30-2020.pdf (texas.gov). Accessed November 2023.
- Barker, Eugene C. and James W. Pohl 2024. Texas Revolution. *Handbook of Texas Online.* <https://www.tshaonline.org/handbook/entries/texas-revolution>. Revised by Mary L. Scheer March 2024. Published by the Texas State Historical Association. Accessed January 2024.
- Bexar County 2023a. Bexar County Parks Master Plan 2021. <https://www.bexar.org/DocumentCenter/View/31311/Bexar-County-Parks-Master-Plan?bidId=>. Accessed November 2023.
- _____. 2023b. Bexar County Office of Emergency Management 2023. Bexar County Emergency Management Plan 2009. <https://www.bexar.org/DocumentCenter/View/1558/BCOEM-Basic-Plan?bidId=>. Accessed November 2023.
- Blair, W.F. 1950. The Biotic Provinces of Texas. *Texas Journal of Science* 2:93-117. https://tpwd.texas.gov/publications/pwdpubs/media/pwd_mp_e0100_1070ae_08.pdf. Accessed December 2023.
- Bousman, C. Britt, Barry W. Baker, and Anne C. Kerr. 2004. "Paleoindian Archeology in Texas." In *Prehistory of Texas*. Ed. Timothy Perttula. Texas A&M University Press. College Station.
- Brazos River Authority. 2023. Bracted Twistflower. <https://brazos.org/About-Us/Environmental/Species/Species-of-Interest/Threatened-Species/Bracted-Twistflower#:~:text=and%20Williamson%20counties.-,Habitat,to%20provide%20protection%20from%20grazing>. Accessed December 2023.
- Bureau of Economic Geology (BEG). 1996. Physiographic Map of Texas. Bureau of Economic Geology, University of Texas at Austin. Austin, Texas.
- _____. 2021. Aggregate and Industrial Minerals. <https://www.beg.utexas.edu/minerals/aggregate-industrial>. Accessed December 2023.

- Caldwell, Laura. 2024. Casas Revolt. *Handbook of Texas Online*.
<https://www.tshaonline.org/handbook/entries/casas-revolt>. Published by the Texas State Historical Association. Accessed January 2024.
- Campbell, Linda. 2003. *The Endangered and Threatened Animals of Texas*. Texas Parks and Wildlife Department. 129pp.
- City of Jourdanton. 2023. Zoning Map. <https://www.jourdantontexas.org/DocumentCenter/View/139/Jourdanton-City-Zone-Map>. Accessed November 2023.
- City of San Antonio. 2015. Southern Edwards Plateau Habitat Conservation Plan.
<https://docsonline.sanantonio.gov/FileUploads/dsd/SEPHCPCConservationPlan.pdf>. Accessed December 2023.
- _____. 2023a. Public GIS Viewer (Map). City of San Antonio (COSA). SA Tomorrow Comprehensive Plan.
<https://www.sanantonio.gov/Planning/PlanningUrbanDesign/ComprehensivePlan>. Accessed November 2023.
- _____. 2023b. Zoning Map. <https://gis.sanantonio.gov/DSD/OneStop/Index.html>. Accessed November 2023.
- _____. 2023c. Bond Projects. <https://www.sanantonio.gov/PublicWorks/Projects>. Accessed November 2023.
- City of San Antonio Office of Historic Preservation (OHP). 2024a. Paleoindian Period.
<https://www.sanantonio.gov/Mission-Trails/Prehistory-History/Prehistory-of-SA/Paleoindian-Period>. Accessed January 2024.
- _____. 2024b. OHP Explorer. <https://gis.sanantonio.gov/OHP/explorer/index.html>. Accessed January 2024.
- City of Sandy Oaks. 2023. <https://92mc30.p3cdn1.secureserver.net/wp-content/uploads/2020/08/COSO-Master-Plan-2020.pdf?time=1710533711>. Accessed November 2023.
- City of Von Ormy 2023. Zoning Map. <https://vonormytx.gov/zoning>. Accessed November 2023.
- Collins, Michael B. 2002. The Gault Site, Texas and Clovis Research. *Athena Review* 3(2):24-36.
- _____. 2004. Archeology in Central Texas. In *The Prehistory of Texas*. Ed. Timothy Perttula. College Station: Texas A & M University Press.
- Conant, R. and J.T. Collins. 1991. *A Field Guide to Reptiles and Amphibians: Eastern and Central North America*. Third edition. Houghton Mifflin Co., Boston, Massachusetts.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service, Office of Biological Services, Washington, D.C.
- de la Teja, Jesús F. 2024. San Fernando de Béxar. *Handbook of Texas Online*.
<https://www.tshaonline.org/handbook/entries/san-fernando-de-bexar>. Published by the Texas State Historical Association. Accessed January 2024.
- Dixon, J.R. 2013. *Amphibians and Reptiles of Texas*, 3rd ed. Texas A&M University Press. College Station, Texas. 447pp.

- Edwards Aquifer Authority (EAA). 2019. Edwards Aquifer Authority Rules. https://www.edwardsaquifer.org/wp-content/uploads/2020/01/EAA-Rules_December-20-2019.pdf. Accessed December 2023.
- _____. 2023a. EAA Subchapter 713 Regulated Zones. <https://www.arcgis.com/home/webmap/viewer.html?webmap=aed0e4eddc794ec49d740a267d42560a&extent=-101.1491,28.3085,-96.6364,30.6845>. Accessed December 2023.
- _____. 2023b. What EAA District Am I In. <http://eaa.maps.arcgis.com/apps/InformationLookup/index.html?appid=67afe114de4e4c2d89e3fcf7c074d2b4>. Accessed December 2023.
- Elliot, L. 2014. Descriptions of Systems, Mapping Subsystems, and Vegetation Types for Texas. https://tpwd.texas.gov/landwater/land/programs/landscape-ecology/ems/emst/texasecologicalsystemsdescriptions_2016.pdf. Accessed December 2023.
- Federal Aviation Administration (FAA). 2023a. National Aeronautical Charting Office. San Antonio Sectional Aeronautical Chart, Effective November 30, 2023.
- _____. 2023b. Chart Supplement South Central U.S. (Formerly known as the Airport/Facility Directory South Central U.S.). http://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/. Accessed November 2023.
- _____. 2023c. Airport Data and Contact Information. <https://adip.faa.gov/agis/public/#/airportSearch/advanced>. Accessed November 2023.
- Federal Communication Commission (FCC). 2023. Search FCC Database. <https://www.fcc.gov/licensing-databases/search-fcc-databases>. Accessed November 2023.
- Federal Emergency Management Agency (FEMA). 2023. FEMA's National Flood Hazard Layer (NFHL) Viewer <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>. Accessed December 2023.
- Federal Highway Administration. 2023. Federal Highway Administration. Byways. <https://www.fhwa.dot.gov/byways>. Accessed November 2023.
- Foster, William C. 2008. Historic Native People of Texas. University of Texas Press, Austin.
- Google, Inc. 2023. Aerial Maps. Google Earth, version 7.3.6.9345 Google, Inc.
- Gould, F.W., G.O. Hoffman, and C.A. Rechenthin. 1960. Vegetational areas of Texas. Texas Agricultural Extension Service. L-492. https://tpwd.texas.gov/publications/pwdpubs/media/pwd_mp_e0100_1070ac_34.pdf. Accessed December 2023.
- Griffith, G., S. Bryce, J. Omernik, and A. Rogers. 2007. Ecoregions of Texas. Project Report to Texas Commission on Environmental Quality. Austin, Texas. 125pp. https://gaftp.epa.gov/EPADDataCommons/ORD/Ecoregions/tx/TXeco_Jan08_v8_Cmprsd.pdf. Accessed December 2023.

- Handbook of Texas Online. 2024. San Antonio de Béxar Presidio. *Handbook of Texas Online*.
<https://www.tshaonline.org/handbook/entries/san-antonio-de-bexar-presidio>. Published by the Texas State Historical Association. Accessed March 2024.
- Henke S.E. and W.S. Fair. 1998. Management of Texas Horned Lizards. Wildlife Management Bulletin of the Caesar Kleberg Wildlife Research Institute. Texas A&M University-Kingsville. No.2.
- Hester, Thomas R. 1995. The Prehistory of South Texas. Texas A&M Press. <http://www.texasbeyondhistory.net/st-plains/prehistory/images/Hester-1995-prehistorysTexas.pdf>. Originally published in *From the Gulf to the Rio Grande: Human Adaptation in Central, South and Lower Pecos Texas*, Thomas R. Hester, Texas A&M University Press, College Station.
- _____. 2004. The Prehistory of South Texas. In *The Prehistory of Texas*, Perttula, T.K., ed. Texas University A&M Press, College Station.
- Hubbs, C. 1957. Distributional patters of Texas freshwater fishes. *Southwest Naturalist* 2:89-104.
- Jasinski, Laurie E. 2024. San Antonio, TX. Handbook of Texas Online.
<https://www.tshaonline.org/handbook/entries/helotes-tx>. Published by the Texas State Historical Association. Accessed January 2024.
- Jordan, Terry G. 2024. Germans. *Handbook of Texas Online*.
<https://www.tshaonline.org/handbook/entries/germans>. Published by the Texas State Historical Association. Accessed January 2024.
- Lockwood. M.W. 2008. Birds of the Edwards Plateau, A Field Checklist, 3rd edition. Texas Parks and Wildlife Department. Austin Texas.
- Lockwood, M.W. and B. Freeman. 2014. The TOS handbook of Texas birds, 2nd edition, Revised. Texas A&M University Press. College Station, Texas. 403pp.
- MacNeish, Richard S. 1947. A Preliminary Report on Coastal Tamaulipas. *American Antiquity* (13(1)):1-15.
- Mason, J. Alden. 1935. The Place of Texas in Pre-Columbian Relationships between the United States and Mexico. Volume 7, pp 29-46. *The Bulletin of the Texas Archeological and Paleontological Society*. The Texas Archeological Society, Abilene.
- Massey, Cynthia Leal. 2024. Helotes, TX. *Handbook of Texas Online*.
<https://www.tshaonline.org/handbook/entries/helotes-tx>. Published by the Texas State Historical Association. Accessed January 2024.
- Mercado-Allinger, P.A., N.A. Kenmotsu, and T.K. Perttula. 1996. Archeology in the central and southern planning region, Texas: a planning document. Division of Antiquities Protection, Cultural Resource Management Report 7. Texas Historical Commission. Austin, Texas.
- Moses, Bruce K., and David L. Nickels. 2020. *Roads to the Battle of Medina: A Search for the Lost Battlefield of Texas*. Contribution by Cynthia M. Munoz. Alamo Press, Von Ormy, Texas.
- National Conservation Easement Database (NCED). 2024. NCED Easements.
<https://www.conservationeasement.us/about/>. Accessed March 2024.

National Park Service (NPS). 2024a. National Parks. Texas. <http://www.nps.gov/state/tx/index.htm?program=all>. Accessed February 2024.

_____. 2024b. National Historic Landmarks Program – Lists of National Historic Landmarks - Texas. <https://www.nps.gov/subjects/nationalhistoriclandmarks/list-of-nhls-by-state.htm>. Accessed March 2024.

_____. 2024c. National Trail System. <https://www.nps.gov/subjects/nationaltrailssystem/index.htm>. Accessed March 2024.

_____. 2024d. National Register of Historic Places Program: Research. <https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466>. Accessed January 2024.

_____. 2024e. El Camino Real de los Tejas National Historic Trail Louisiana and Texas. https://www.nps.gov/nr/travel/american_latino_heritage/El_Camino_Real_de_los_Tejas_National_Historic_Trail.html. Accessed March 2024.

National Register of Historic Places (NRHP). 1997. Atascosa County Courthouse. Atascosa County, Texas. Reference Number: 97001598.

_____. 1998. Korus Farmstead. Atascosa County, Texas. Reference Number: 98000876.

_____. 2000. Lyons, Frederick and Sallie, House. Atascosa County, Texas. Reference Number: 01000061.

_____. 2008. R.I. White Ranch, Helotes, Bexar County, Texas, National Register Number: 8000474.

_____. 2012. Presnall-Watson Homestead. Bexar County, Texas. Reference Number: 2012000192.

_____. 2022. Heermann Store. Bexar County, Texas. Reference Number: 100008551.

National Wild and Scenic Rivers System (NWSRS). 2024. National Wild and Scenic Rivers System Wild and Scenic Rivers by State. <http://rivers.gov/map.php>. Accessed February 2024.

Nature Conservancy. 2023. Texas. Places We Protect. <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/texas/placesweprotect/index.htm>. Accessed November 2023.

Natural Resources Conservation Service (NRCS). 2023. Monarch Butterflies. <https://www.nrcs.usda.gov/programs-initiatives/monarch-butterflies>. Accessed December 2023.

_____. 2024. NRCS Soil Web Survey. <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed February 2024.

NatureServe. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. 2023a. Cokendolpher Cave Harvestman (*Texella cokendolpheri*). https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.115249/Texella_cokendolpheri. Accessed December 2023.

_____. 2023b. Government Canyon Bat Cave Spider (*Tayshaneta microps*). https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.114191/Tayshaneta_microps. Accessed December 2023.

- _____. 2023c. Madla Cave Meshweaver (*Cicurina madla*).
https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.1216223/Cicurina_madla. Accessed December 2023.
- _____. 2023d. Robber Baron Cave Meshweaver (*Cicurina baronia*).
https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.114421/Cicurina_baronia. Accessed December 2023.
- _____. 2023e. A ground beetle (*Rhadine exilis*).
https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.117307/Rhadine_exilis. Accessed December 2023.
- _____. 2023f. A ground beetle (*Rhadine infernalis*).
https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.120568/Rhadine_infernalis. Accessed December 2023.
- _____. 2023g. Helotes Mold Beetle (*Batrisodes venyivi*).
https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.119133/Batrisodes_venyivi. Accessed December 2023.
- _____. 2023h. Texas Salamander (*Eurycea neotenes*).
https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.105042/Eurycea_neotenes. Accessed December 2023.
- Paquin, P., and M. Hedin. 2004. The power and perils of “molecular taxonomy”: A case study of eyeless and endangered Cicurina (Araneae: Dictynidae) from Texas caves. *Molecular Ecology* 13: 3239-3255.
- Perttula, Timothy K. 2004. An Introduction of Texas Prehistoric Archeology. In *The Prehistory of Texas*, edited by Timothy K. Perttula, 5-14pp. Texas A&M University Press. College Station, Texas.
- Peterson, Linda. 2024. Atascosa County. *Handbook of Texas Online*.
<https://www.tshaonline.org/handbook/entries/atascosa-county>. Published by the Texas State Historical Association. Accessed January 2024.
- PLATTS. 2023. McGraw Hill Financial, Inc., 2 Penn Plaza, New York, New York. Accessed November 2023.
- Poole, Jackie M., William R. Carr, Dana M. Price and Jason R. Singhurst. 2007. Rare Plants of Texas. Texas A&M University Press. College Station, Texas. 640pp.
- Powell, Robert, Roger Conant, and Joseph T. Collins. 2016. Peterson Field Guide to Reptiles and Amphibians of Eastern and Central North America. Fourth Edition. Houghton Mifflin Harcourt Publishing Company, New York, New York. 493pp.
- Pulich, WM. 1976. The Golden-Cheeked Warbler – A Bioecological Study. Texas Parks and Wildlife Department. Austin, Texas. 172pp.
- Railroad Commission of Texas (RRC). 2015. Mining Regions/Fields and Sites.
<https://www.rrc.texas.gov/surface-mining/historical-coal-mining/mining-regions-fields-and-sites/>. Accessed December 2023.
- _____. 2023a. Public GIS Viewer (Map). <https://gis.rrc.texas.gov/GISViewer/>. Accessed December 2023.

- _____. 2023b. Permits, Permitted Coal Mining Locations. Lignite Surface Mine Permit Location Map. <https://www.rrc.texas.gov/surface-mining/permits/>. Accessed December 2023.
- _____. 2023c. Surface Coal Mine County Information. <https://www.rrc.texas.gov/surface-mining/permits/surface-coal-mine-county-information/>. Accessed December 2023.
- _____. 2023d. Texas Uranium Exploration Permits. <https://www.rrc.texas.gov/surface-mining/programs/uranium-exploration/texas-uranium-exploration-permits/>. Accessed December 2023.
- Riddell, J.R., and James C. Cokendolpher. 2004. New species and records of cavernicole Rhadine (Coleoptera: Carabidae) from Camp Bullis, Texas. *Texas Memorial Museum, Speleological Monographs*, 6:153-162. https://www.researchgate.net/publication/267788723_NEW_SPECIES_AND_RECORDS_OF_CAVERNICOLE_RHADINE_COLEOPTERA_CARABIDAE_FROM_CAMP_BULLIS_TEXAS. Accessed December 2023.
- Salinas, M. 1990. *Indians of the Rio Grande Delta: Their Role in the History of Southern Texas and Northeastern Mexico*. University of Texas Press, Austin.
- Schilz, Jodye Lynn Dickson. 2024. Council House Fight. *Handbook of Texas Online*. <https://www.tshaonline.org/handbook/entries/council-house-fight>. Published by the Texas State Historical Association. Accessed January 2024.
- Schmidly, D.J. and R.D. Bradley. 2016. *The Mammals of Texas*, 7th edition. University of Texas Press. Austin, Texas. 694pp.
- Schoelwer, Susan Prendergast. 2024. San Antonio de Valero Mission. *Handbook of Texas Online*. <https://www.tshaonline.org/handbook/entries/san-antonio-de-valero-mission>. Published by the Texas State Historical Association. Accessed January 2024.
- Society for the Study of Amphibians and Reptiles. 2017. *Scientific and Standard English Names of Amphibians and Reptiles in North America North of Mexico, with Comments Regarding Confidence in our Understanding*. 8th Edition. <https://ssarherps.org/wp-content/uploads/2017/10/8th-Ed-2017-Scientific-and-Standard-English-Names.pdf>. Accessed December 2023.
- South Central Texas Regional Water Planning Group. 2021a. 2021 South Central Texas Regional Water Plan (Region L). Volume 1. https://www.regionltexas.org/wp-content/uploads/2022/11/RegionL_2021RWP_V1. Accessed December 2023.
- _____. 2021b. 2021 South Central Texas Regional Water Plan (Region L). Volume 2. https://www.regionltexas.org/wp-content/uploads/2022/11/RegionL_2021RWP_V2.pdf. Accessed December 2023.
- Terneny, Tiffany T. 2005. *A Re-Evaluation of Late Prehistoric and Archaic Chronology in the Rio Grande Delta of South Texas*. PhD. Dissertation, University of Texas, Austin.
- Texas Commission on Environmental Quality (TCEQ). 2007. *Three Total Maximum Daily Loads for Bacteria in the San Antonio Area*. <https://www.tceq.texas.gov/downloads/water-quality/tmdl/upper-san-antonio-river-recreational-34/34-upper-san-antonio-tmdl-adopted.pdf>. Accessed December 2023.
- _____. 2020. *Edwards Aquifer Protection Program*. <https://www.tceq.texas.gov/permitting/eapp>. Accessed December 2023.

- _____. 2022. Texas Integrated Report of Surface Water Quality – Texas 303(d) List (Category 4 & 5). <https://www.tceq.texas.gov/downloads/water-quality/assessment/integrated-report-2022/2022-imp-index.pdf>. Accessed December 2023.
- _____. 2023a. Index to Superfund Sites by County. Bexar County. <https://www.tceq.texas.gov/remediation/superfund/sites/county/bexar.html>. Accessed December 2023.
- _____. 2023b. Harris Sand Pits. <https://www.tceq.texas.gov/remediation/superfund/state/harris.html>. Accessed December 2023.
- _____. 2023c. Pioneer Oil Refining Company. <https://www.tceq.texas.gov/remediation/superfund/state/pioneer.html>. Accessed December 2023.
- _____. 2023d. Data on Municipal Solid Waste Facilities in Texas. https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw-data. Accessed December 2023.
- Texas Department of Transportation (TxDOT). 2023a. County Grid Map Search. https://www.dot.state.tx.us/apps-cg/grid_search/county_grid_search.htm. Accessed November 2023.
- _____. 2023b. Project Tracker. https://apps3.txdot.gov/apps-cq/project_tracker/. Accessed November 2023.
- _____. 2024c. TxDOT Historic Resources of Texas Aggregator. <https://txdot.maps.arcgis.com/apps/webappviewer/index.html?id=e13ba0aa78bf4548a8e98758177a8dd5>. Accessed January 2024.
- Texas Education Agency (TEA). 2023. School District Locator. <http://tea-texas.maps.arcgis.com/apps/Solutions/s2.html?appid=8b1d6f13310a49f48aa7052fe13f505a>. Accessed November 2023.
- Texas Historical Commission (THC). 2023. Texas Heritage Trails Program. <https://thc.texas.gov/preserve/tourism-and-economic-development/texas-heritage-trails>. Accessed November 2023.
- _____. 2024a. Texas Archeological Sites Atlas (TASA). <http://atlas.thc.state.tx.us/>. Accessed November 2023 and January 2024.
- _____. 2024b. Texas Historical Sites Atlas (THSA). (Restricted Access): <http://nueces.thc.state.tx.us/>. Accessed November 2023 and January 2024.
- Texas Land Conservancy (TLC). 2023a. Lands. Protected Lands. <https://www.texaslandconservancy.org/our-work>. Accessed November 2023.
- Texas Parks and Wildlife Department (TPWD). 2011. Ocelot. https://tpwd.texas.gov/publications/pwdpubs/media/pwd_bk_w7000_0013_ocelot.pdf. Accessed December 2023.
- _____. 2023a. Texas Watershed Viewer. <https://tpwd.maps.arcgis.com/apps/Viewer/index.html?appid=2b3604bf9ced441a98c500763b8b1048>. Accessed December 2023.

- _____. 2023b. Ecologically Significant Stream Segments – Region L. https://tpwd.texas.gov/landwater/water/conservation/water_resources/water_quantity/sigsegs/regionl.phtml. Accessed December 2023.
- _____. 2023c. Texas Environmental Analytical Mapper (TEAM). <https://tpwd.texas.gov/gis/team/>. Accessed December 2023.
- _____. 2023d. Rare, Threatened and Endangered Species of Texas (RTEST) – Query by County. <http://tpwd.texas.gov/gis/rtest/>. Accessed December 2023.
- _____. 2023e. Black Lace Cactus. https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/plants/black_lace_cactus.phtml. Accessed December 2023.
- _____. 2023f. Texas Wild-Rice. https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/plants/texas_wild_rice.phtml. Accessed December 2023.
- _____. 2023g. Golden-cheeked Warbler (*Setophaga chrysoparia*). <https://tpwd.texas.gov/huntwild/wild/species/gcw/>. Accessed December 2023.
- _____. 2023h. White-faced Ibis (*Plegadis chihi*). <https://tpwd.texas.gov/huntwild/wild/species/ibis/>. Accessed December 2023.
- _____. 2023i. Black Bear (*Ursus americanus*). <https://tpwd.texas.gov/huntwild/wild/species/blackbear/>. Accessed December 2023.
- _____. 2023j. Texas Horned Lizard (*Phrynosoma cornutum*). <https://tpwd.texas.gov/huntwild/wild/species/thlizard/>. Accessed December 2023.
- _____. 2023k. Texas Tortoise (*Gopherus berlandieri*). <https://tpwd.texas.gov/huntwild/wild/species/txtort/>. Accessed December 2023.
- _____. 2023l. Texas Parks and Wildlife - Find a Park. <https://tpwd.texas.gov/state-parks/parks-map>. Accessed November 2023.
- _____. 2023m. Texas Public Hunting Locations. <http://tpwd.maps.arcgis.com/apps/webappviewer/index.html?id=c9788957300943559f7b49206e8ef153>. Accessed November 2023.
- _____. 2023n. Texas Parks and Wildlife. Great Texas Wildlife Trails. Heart of Texas East Wildlife Trail – Mission Loop. <https://tpwd.texas.gov/huntwild/wildlife/wildlife-trails/hote/mission-loop>. Accessed November 2023.
- _____. 2024. Data Download. Texas Natural Diversity Database (TXNDD) Information Request Tool Application, Version 3. Austin, Texas. Data received February 2024.
- Texas Speleological Society (TSS). 1966. A Revised Checklist of Texas Caves. Texas Speleological Association. Vol. 1, No. 8. https://www.texasspeleologicalsurvey.org/PDF/TSS_Volume2/Volume2_Number8_MX.pdf. Accessed February 2024.
- _____. 2007. Karst Regions of Texas. Texas Speleological Society. http://www.texasspeleologicalsurvey.org/karst_caving/images/TKR2.jpg. Accessed February 2024.

- Texas State Data Center (TSDC). 2022. Data. Texas Population Projections Program. 2022 Population Projections Data Downloads. <https://demographics.texas.gov/Projections/2022/>. Accessed November 2023.
- Texas Water Development Board (TWDB). 1975. Major and Historical Springs of Texas. Report 189. Texas Water Development Board. Austin, TX.
https://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R189/R189.pdf. Accessed December 2023.
- _____. 2011. Aquifers of Texas. Report 380. Texas Water Development Board. Austin, TX.
https://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R380_AquifersofTexas.pdf. Accessed December 2023.
- _____. 2022. 2022 State Water Plan. <https://www.twdb.texas.gov/waterplanning/swp/2022/index.asp>. Accessed November 2023.
- _____. 2023. Water Data Interactive.
<https://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer>. Accessed November 2023.
- The Nature Conservancy. 2023. Texas. Places We Protect. <https://www.nature.org/en-us/get-involved/how-to-help/places-we-protect/>. Accessed November 2023.
- Thomas, C., Bonner T.H., and B.G. Whiteside. 2007. Freshwater Fishes of Texas a field guide. Texas A&M University Press. College Station, Texas. 202pp.
- Tipton, B.L., T.L. Hibbits, T.D. Hibbits, T.J. Hibbits, and T.J. Laduc. 2012. Texas Amphibians – A Field Guide. University of Texas Press. Austin, Texas. 309 pp.
- United States Census Bureau (USCB). 2010. Quickfacts.<https://www.census.gov/quickfacts/fact/table/bexarcountytexas,atascosacountytexas/PST045222>. Accessed November 2023.
- _____. 2023. Explore Census Data. Advance Search. <https://data.census.gov/cedsci/advanced>. Accessed November 2023.
- United States Department of Agriculture (USDA). 2017. 2017 Census of Agriculture – Texas – State and County Profiles.
https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Texas/. Accessed November 2023.
- _____. 2012. 2012 Census of Agriculture – Texas – State and County Profiles.
https://agcensus.library.cornell.edu/census_year/2012-census/. Accessed November 2023.
- United States Department of Transportation. 2023. Federal Railroad Administration – Safety Map. Available on the internet: <https://fragis.fra.dot.gov/GISFRASafety/> (accessed November 2023).
- United States Environmental Protection Agency (USEPA). 2023. Superfund Sites Where You Live.
<https://www.epa.gov/superfund/search-superfund-sites-where-you-live>. Accessed December 2023.
- United States Fish and Wildlife Service (USFWS). 2007. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Peck’s Cave Amphipod, Comal Springs Dryopid Beetle, and Comal Springs Riffle Beetle; Final Rule, 72 Fed. Reg. § 39248. Final rule Jul. 17, 2007 (to be codified at

50 C.F.R. pts. 17). <https://www.govinfo.gov/content/pkg/FR-2007-07-17/pdf/07-3267.pdf#page=2>. Accessed December 2023.

- _____. 2009. Whooping Cranes and Wind Development, An issue Paper. USFWS Region 2 and Region 6, April 2009.
- _____. 2012. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Nine Bexar County, TX Invertebrates; Final Rule, 77 Fed. Reg. § 8450. Final rule Feb. 14, 2012 (to be codified at 50 C.F.R. pts. 17). <https://www.govinfo.gov/content/pkg/FR-2012-02-14/pdf/2012-2195.pdf#page=2>. Accessed December 2023.
- _____. 2013. Rufa Red knot (*Calidris canutus rufa*). https://www.fws.gov/northeast/redknot/pdf/Redknot_BWfactsheet092013.pdf. Accessed December 2023.
- _____. 2023a. National Wetland Inventory (NWI) Mapper. <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed December 2023.
- _____. 2023b. Information for Planning and Consultation (IPaC). Report requested and received on December 11, 2023. Project Code: 2024-0025151.
- _____. 2023c. Government Canyon Bat Cave Meshweaver. <https://www.fws.gov/species/government-canyon-bat-cave-meshweaver-cicurina-vespera>. Accessed December 2023.
- _____. 2023d. Piping Plover. <https://www.fws.gov/species/piping-plover-charadrius-melodus>. Accessed December 2023.
- _____. 2023e. Rufa Red Knot. <https://www.fws.gov/species/rufa-red-knot-calidris-canutus-rufa>. Accessed December 2023.
- _____. 2023f. Whooping Crane. <https://www.fws.gov/species/whooping-crane-grus-americana>. Accessed December 2023.
- _____. 2023g. Peck's Cave Amphipod. <https://www.fws.gov/species/pecks-cave-amphipod-stygebromus-pecki>. Accessed December 2023.
- _____. 2023h. Comal Springs Dryopid Beetle. <https://www.fws.gov/species/comal-springs-dryopid-beetle-stygotarnus-comalensis>. Accessed December 2023.
- _____. 2023i. Comal Springs Riffle Beetle. <https://www.fws.gov/species/comal-springs-riffle-beetle-heterelmis-comalensis>. Accessed December 2023.
- _____. 2023j. Tricolored Bat. <https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus>. Accessed December 2023.
- _____. 2023k. False Spike. <https://www.fws.gov/species/false-spike-quincuncina-mitchelli>. Accessed December 2023.
- _____. 2023l. Bald Eagle. <https://www.fws.gov/species/bald-eagle-haliaeetus-leucocephalus>. Accessed December 2023.
- _____. 2023m. Golden Eagle. <https://www.fws.gov/species/golden-eagle-aquila-chrysaetos>. Accessed December 2023.

- _____. 2023n. Cascade Caverns Salamander. <https://www.fws.gov/species/cascade-caverns-salamander-eurycea-latitans>. Accessed December 2023.
- _____. 2023o. Toothless Blindcat. <https://www.fws.gov/species/toothless-blindcat-trogloglanis-pattersoni>. Accessed December 2023.
- _____. 2023p. Widemouth Blindcat. <https://www.fws.gov/species/widemouth-blindcat-satan-eurystomus>. Accessed December 2023.
- United States Geological Survey (USGS). 2023. Map of Whooping Crane Corridor. <https://www.sciencebase.gov/catalog/item/imap/5a314a72e4b08e6a89d707e0>. Accessed December 2023.
- _____. 2024a. National Map Viewer. <https://apps.nationalmap.gov/viewer/>. Accessed February 2024.
- _____. 2024b. Texas Pocket Geology. <https://txpub.usgs.gov/txgeology/>. Accessed February 2024.

Appendix A
Agency and Other Correspondence

This page left blank intentionally.

CPS Energy/STEC 345-kV Transmission Line Project
Federal, State, and Local Agencies/Officials Contact List

FEDERAL

Mr. Rob Lowe
Southwest Regional Administrator
Federal Aviation Administration
10101 Hillwood Parkway
Fort Worth, TX 76177

Mr. Tony Robinson
Region 6 Regional Administrator
Federal Emergency Management Agency
FRC 800 N. Loop 288
Denton, TX 76209-3698

Ms. Kate Hammond
Regions 6, 7, and 8 Acting Director
National Parks Service
IMRextrev@nps.gov

Ms. Kristy Oates
State Conservationist
NRCS Texas State Office
101 South Main Street
Temple, TX 76501

Regulatory Division
U.S. Army Corps of Engineers – Fort Worth
District
CESWF-Permits@usace.army.mil
P.O. Box 17300
Fort Worth, TX 76102-0300

Mr. Jason Story
Section 408 Coordinator
U.S. Army Corps of Engineers – Fort Worth
District
jason.e.story@usace.army.mil

Mr. Steven Sample
Executive Director
Military Aviation and Installation Assurance
Siting Clearinghouse
3400 Defense Pentagon, Room 5C646
Washington, DC 20301-3400

Ms. Earthea Nance
Region 6 Administrator
U.S. Environmental Protection Agency
1201 Elm Street, Suite 500
Dallas, TX 75270

STATE

The Honorable Tony Gonzales
U.S. Congressional District 23
4372 N. Loop 1604 W., Suite 205
San Antonio, TX 78249

The Honorable Henry Cuellar
U.S. Congressional District 28
1145 E. Commerce St., Suite 205
San Antonio, TX 78205

The Honorable Roland Gutierrez
Texas Senator District 19
3175 Sidney Brooks, Building 470
San Antonio, TX 78235

The Honorable Pete Flores
Texas Senator District 24
500 W. Young, Suite D
Llano, TX 78643

The Honorable John Lujan
Texas House District 118
Capitol Extension Room E2.812
Austin, TX 78768

The Honorable Tracy O. King
Texas House District 80
5500 S. Zapata Highway
Building F, Room 130
Laredo, Texas 78046

Ms. Leslie Savage
Chief Geologist, Oil and Gas Division
Railroad Commission of Texas
P.O. Box 12967
Austin, TX 78711-2967

CPS Energy/STEC 345-kV Transmission Line Project
Federal, State, and Local Agencies/Officials Contact List

Mr. George Ortiz
Region 13 Director
Texas Commission on Environmental Quality
14250 Judson Rd.
San Antonio, TX 78233-4480

Mr. Dan Harmon
Director, Department of Aviation
Texas Department of Transportation
6230 E Stassney Lane
Austin, TX 78744

Mr. Doug Booher, P.E.
Director, Environmental Affairs Division
Texas Department of Transportation
6230 E Stassney Lane
Austin, TX 78744

Mr. Humberto "Tito" Gonzalez Jr., P.E.
Director, Planning & Programming
Texas Department of Transportation
6230 E Stassney Lane
Austin, TX 78744

Ms. Gina Gallegos, P.E.
San Antonio District Engineer
Texas Department of Transportation
4615 NW Loop 410
San Antonio, TX 78229-0928

Dr. Dawn Buckingham, M.D.
Commissioner
Texas General Land Office
P.O. Box 12873
Austin, TX 78711

Mr. Mark Wolfe
Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711

Ms. Laura Zebehazy
Wildlife Habitat Assessment Program
Texas Parks and Wildlife Department
Laura.zebehazy@tpwd.texas.gov

Mr. Jeff Walker
Executive Administrator
Texas Water Development Board
P.O. Box 13231
Austin, TX 78711-3231

LOCAL

Ms. Brenda Hicks-Sorensen
Director Economic Development Department
City of San Antonio
City Tower
100 West Houston Street, 18th Floor
San Antonio, TX 78205

Mr. Rudy Nino
Director
City of San Antonio - Department of Planning
100 West Houston Street, 18th Floor
San Antonio, TX 78205

Ms. Catherine Hernandez
Director
City of San Antonio - Transportation
P.O. Box 839966
San Antonio, TX 78283

Ms. Shanon Shea Miller
Director
City of San Antonio Office of Historic
Preservation Development and Business
Services Center
P.O. Box 839966
San Antonio, TX 78283

Mr. Ron Nirenberg
Mayor
City of San Antonio
P.O. Box 839966
San Antonio, TX 78283

Ms. Phyllis Viagran
Councilwoman, District 3
City of San Antonio
P.O. Box 839666
San Antonio, TX 78283

CPS Energy/STEC 345-kV Transmission Line Project
Federal, State, and Local Agencies/Officials Contact List

Ms. Adriana Rocha Garcia
Councilwoman, District 4
City of San Antonio
P.O. Box 839666
San Antonio, TX 78283

The Honorable Mark Gillespie
Atascosa County Commissioner
Precinct 1
1 Courthouse Circle Drive, Suite 105
Jourdanton, TX 78026

Ms. Diane Rath
Executive Director
Alamo Area Council of Governments
2700 NE Loop 410, Suite 101
San Antonio, TX 78217

The Honorable Mark Bowen
Atascosa County Commissioner
Precinct 2
1 Courthouse Circle Drive, Suite 105
Jourdanton, TX 78026

Mr. Gary Schott
Chairman
Alamo Soil and Water Conservation District
727 E Chavez Blvd RM A507
San Antonio, TX 78206-1216

The Honorable Eliseo Perez
Atascosa County Commissioner
Precinct 3
1 Courthouse Circle Drive, Suite 105
Jourdanton, TX 78026

Ms. Colleen Swain
Director
San Antonio World Heritage Office
P.O. Box 839966
San Antonio, TX 78283

The Honorable Kennard "Budda" Riley
Atascosa County Commissioner
Precinct 4
1 Courthouse Circle Drive, Suite 105
Jourdanton, TX 78026

Mr. Robert R. Puente, J.D.
President/CEO
San Antonio Water System
P.O. Box 2449
San Antonio, TX 78298

Mr. Martin Gonzales
Chair
Atascosa County Historical Commission
2670 Strawberry City Rd.
Poteet, TX 78065

Mr. Roland Ruiz
General Manager/Chairman
Edwards Aquifer Authority
900 E. Quincy St.
San Antonio, TX 78215

Ms. Theresa McAllister
Superintendent
Jourdanton Independent School District
200 Zanderson Ave.
Jourdanton, TX 78026

Mr. Derek Boese
Interim General Manager
San Antonio River Authority
100 East Guenther St.
San Antonio, TX 78204

Ms. Cheryl Barron
Acting Superintendent
Pleasanton Independent School District
831 Stadium Drive
Pleasanton, TX 78064

ATASCOSA COUNTY

Mr. Weldon Cude
County Judge
Atascosa County Judge
1 Courthouse Circle Dr., Suite 206
Jourdanton, TX 78026

Mr. Roger Solis
Superintendent
Charlotte ISD
P.O. Box 489
Charlotte, TX 78011

CPS Energy/STEC 345-kV Transmission Line Project
Federal, State, and Local Agencies/Officials Contact List

Mr. Charles Camarillo
Superintendent
Poteet ISD
P.O. Box 138
Poteet, TX 78065

Mr. Roland Toscano
Superintendent
East Central ISD
6634 New Sulphur Springs Rd.
San Antonio, TX 78263

BEXAR COUNTY

Mr. Peter Sakai
Bexar County Judge
101 West Nueva, 10th Floor
San Antonio, TX 78205-3482

Dr. Jose H. Moreno
Superintendent
Somerset ISD
P.O. Box 279
Somerset, TX 78069

Ms. Rebeca Clay-Flores
Bexar County Commissioner
Precinct 1
101 West Nueva, Suite 1009
San Antonio, TX 78205-3482

Mr. Ronaldo Ramirez
Superintendent
Southside ISD
1460 Martinez Losoya Rd.
San Antonio, TX 78221

Mr. Tommy Calvert
Bexar County Commissioner
Precinct 4
101 West Nueva, Suite 1029
San Antonio, TX 78205-3482

Dr. Jeanette Ball
Superintendent
Southwest ISD
11914 Dragon Ln.
San Antonio, TX 78252

SUBURBAN CITIES

Mr. David E. Marquez
Executive Director
Bexar County Economic Development
101 West Nueva, Suite 944
San Antonio, TX 78205

Ms. Denise Leal Sanchez
Mayor
City of Poteet
P.O. Box 378
Poteet, TX 78065

Mr. Todd Putnam
Bexar County Flood Control
1948 Probandt Street
San Antonio, TX 78214

Ms. Melissa Popham
City Administrator
City of Poteet
P.O. Box 378
Poteet, TX 78065

Mr. Tim Draves
Chair
Bexar County Historical Commission
100 Dolorosa Suite 311
San Antonio, TX 78205

Mr. Jerry Flores
Mayor
City of Christine
P.O. Box 238
Poteet, TX 78065

Mr. David L. Smith
Bexar County Manager
101 W. Nueva, 10th Floor
San Antonio, TX 78205

Mr. Robert A. Williams
Mayor
City of Jourdanton
1604 SH 97 E, Suite A
Jourdanton, TX 78026

CPS Energy/STEC 345-kV Transmission Line Project
Federal, State, and Local Agencies/Officials Contact List

Ms. Debbie Molina
City Secretary
City of Jourdanton
1604 SH 97 E, Suite A
Jourdanton, TX 78026

Mr. Mark Steinbach
Executive Director
Texas Land Conservancy
P.O. Box 162481
Austin, TX 78716

Mr. Clinton J. Powell
Mayor
City of Pleasanton
108 Second St.
Pleasanton, TX 78064

Mr. Chad Ellis
Chief Executive Director
Texas Agricultural Land Trust
P.O. Box 6152
San Antonio, TX 78209

Mr. Johnny Huizar
City Manager
City of Pleasanton
108 Second St.
Pleasanton, TX 78064

Mr. Greg Mosier
President
Texas Cave Management Association
2186 Jackson Keller Street, #533
San Antonio, TX 78214

Mr. John Metting
City Engineer
City of Pleasanton
108 Second St.
Pleasanton, TX 78064

Mr. Michael Martinez Jr.
Mayor
City of Sandy Oaks
P.O. Box 828
Sandy Oaks, TX 78112

Ms. Lydia P. Hernandez
Mayor
City of Somerset
7360 E. 6th St.
Somerset, TX 78069

**NON-GOVERNMENTAL
ORGANIZATION**

Ms. Suzanne Scott
Regional State Director, Texas
The Nature Conservancy
200 E. Grayson, Suite 202
San Antonio, TX 78215

Ms. Lori Olson
Texas Land Trust Council
Executive Director
P.O. Box 2677
Wimberley, TX 78676

This page left blank intentionally.



POWER ENGINEERS, INC.
14090 SOUTHWEST FREEWAY
SUITE 300
SUGAR LAND, TX 77478 USA

PHONE 713-977-8787
FAX 713-977-8797

December 8, 2023
(Via Mail)

«Prefix» «First_Name» «Last_Name»«Suffix»
«Title»
«CompanyAgency»
«Address_1»
«Address_2»
«City», «State» «Zip»

Re: Proposed Howard Road to San Miguel 345 kV Transmission Line Project (San Antonio South Reliability Project) in Atascosa and Bexar Counties, Texas
POWER Engineers, Inc. Project No. 247247

Dear «Prefix» «Last_Name»:

CPS Energy and South Texas Electric Cooperative (STEC) are evaluating the construction of a new double-circuit 345 kilovolt (kV) transmission line in Atascosa and Bexar Counties, Texas. The Electric Reliability Council of Texas (ERCOT) designated this project as “critical” to the reliability of the ERCOT system. The proposed 345 kV line will extend approximately 50 miles from the CPS Energy Howard Road Switching Station, located approximately 0.17 mile west of State Highway (SH) 16 and approximately 2.70 miles south of Interstate Highway 410, to the STEC San Miguel Switching Station, east and adjacent to the San Miguel Power Plant, located approximately 4.00 miles east of SH 16 and approximately 0.60 mile southwest of Farm-to-Market Road 3387. The purpose of this project is to support growth and enhance reliability. The study area is shown on the enclosed map.

POWER Engineers, Inc. (POWER) is preparing an Environmental Assessment (EA) to support CPS Energy and STEC’s regulatory activities associated with the project. POWER is gathering data on the existing environment and identifying environmental, cultural, and land use constraints within the study area. POWER will identify potential alternative route segments between the end points that consider these environmental, cultural and land use constraints and the need to serve electrical load in the area.

We are requesting that your agency/office provide information concerning environmental and land use constraints or other issues of interest to your agency/office within the study area. Your input will be an important consideration in the evaluation of alternative routes and in the assessment of potential impacts of those routes. In addition, we would appreciate receiving information about any permits, easements, or other approvals by your agency/office that you believe could affect this project, or if you are aware of any major proposed development or construction in the study area. Upon certification of a final route for the proposed project, CPS Energy and STEC will identify and obtain necessary permits, if required, from your agency/office.

December 8, 2023

Thank you for your assistance with this proposed electric transmission line project. Please contact me by phone at 281-765-5507, or by e-mail at lisa.barko@powereng.com if you have any questions or require additional information. We would appreciate receiving your reply by January 7, 2023.

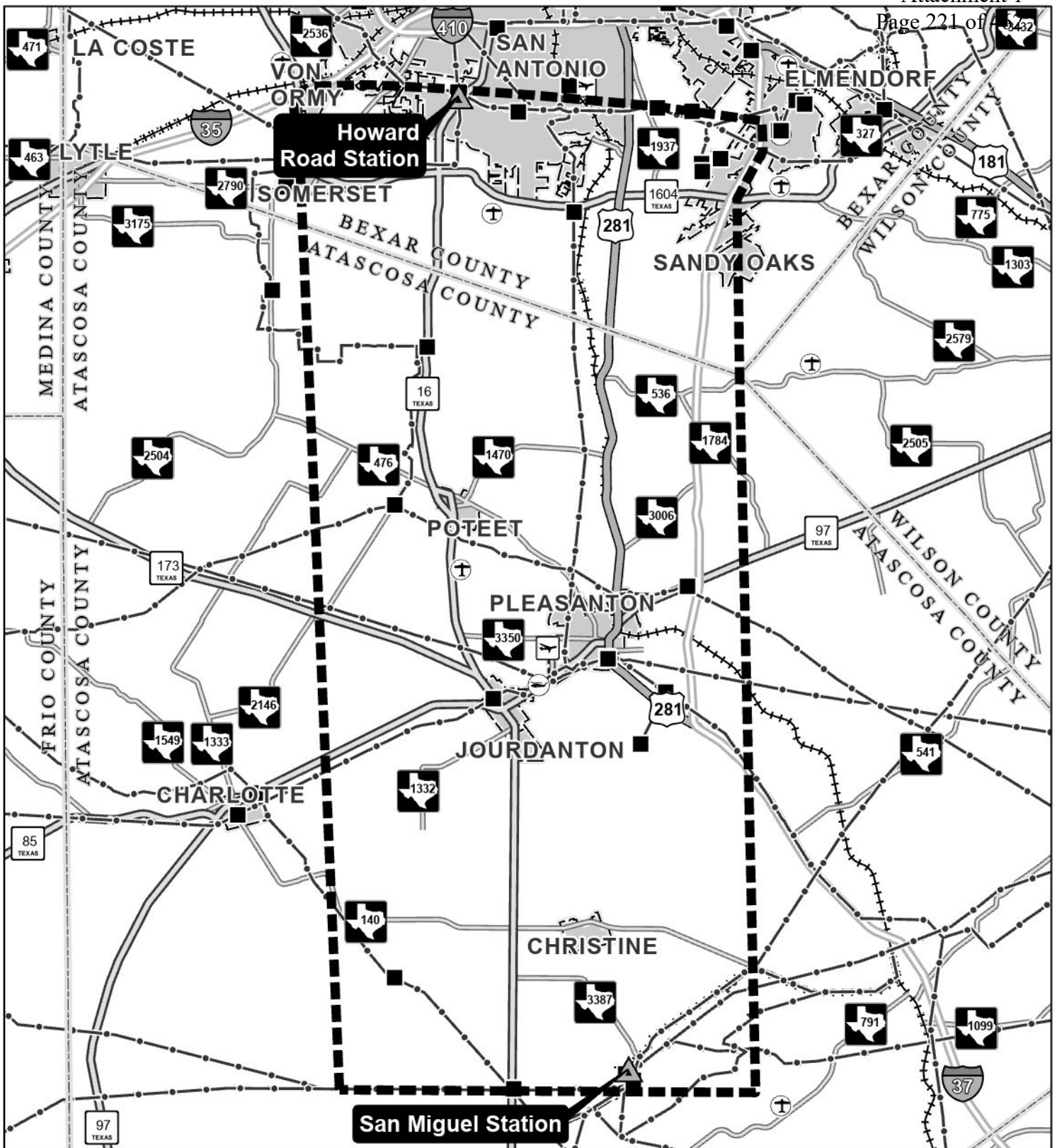
Sincerely,



Lisa Barko Meaux
Senior Project Manager
Regional Manager

Enclosure(s):
Study Area Map

Sent Via Mail
ProjectWise 247247



Study Area Boundary	Interstate Highway		HOWARD ROAD TO SAN MIGUEL 345 KV TRANSMISSION LINE PROJECT STUDY AREA
Project Station	US Highway		
Existing Substation	State Highway		
Existing Transmission Line	Farm-to-Market Road		
Public Airport	Railroad		
Private Airstrip	City Limit	Date: 12/5/2023	
Heliport	County Boundary	00254	

This page left blank intentionally.

Meaux, Lisa

From: Pinos, Diana V (FAA) <Diana.V.Pinos@faa.gov>
Sent: Tuesday, January 16, 2024 4:21 PM
To: Meaux, Lisa
Cc: Cardenas, Debbie (FAA)
Subject: [EXTERNAL] Sugar Land TX
Attachments: 2023-12-8 Power Engineers.pdf; 2023-12-8 Power Engineers Signed.pdf

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Hello,

The FAA requests you electronically file (E-file) at <https://oeaaa.faa.gov> [oeaaa.faa.gov] . E-filing is the preferred method of submitting an aeronautical study as it is the fastest and most accurate method of submission. E-filing immediately assigns an Aeronautical Study Number (ASN) to your project and establishes an electronic communications link with the FAA that allows you to obtain project status and notifications directly from the website.

****Be sure to first sign up for an OEAAA account under 'New User Registration'. **** It's very simple to do and your account is ready immediately after providing required information. Guidance with step-by-step instructions for electronically submitting proposals are contained in the attachment under "Add a New Case Off Airport".

Debbie Cardenas (CC'd), the Technician for studies in this state, will review your electronic submission and will contact you if any additional information is required. She can be reached at debbie.cardenas@faa.gov or (817) 222-5922 .

R,
Diana V. Pinos
NAVTAC Contract Support
Federal Aviation Administration
Obstruction Evaluation Group
AJV-A520
10101 Hillwood Parkway
Fort Worth, TX 76177
Office: 817-222-4104
diana.v-ctr.pinos@faa.gov



Please visit our website:

<https://oeaaa.faa.gov> [oeaaa.faa.gov] * All filing guidance can be found at:
<https://oeaaa.faa.gov/oeaaa/external/content/instructions.jsp> [oeaaa.faa.gov]



U.S. Department
of Transportation
**Federal Aviation
Administration**

Southwest Region
10101 Hillwood Parkway
Fort Worth, TX 76177

January 4, 2024

Lisa Barko Meaux
14090 Southwest Freeway
Suite 300
Sugar Land, TX 77478

Dear Mrs. Meaux,

This is in response to your December 8, 2023, correspondence concerning the evaluation of a new double-circuit 345 kilovolt (kV) transmission line in Atascosa and Bexar Counties, Texas. You requested information regarding environmental and land use constraints within the study area. You also requested information about permits, easements, or other approvals that could affect the project.

As set forth in Title 14 of the Code of Federal Regulations Part 77, Objects that Affect the Navigable Airspace, the prime concern of the Federal Aviation Administration is the effect of certain proposed construction on the safe and efficient use of the navigable airspace.

To accomplish this mission, aeronautical studies are conducted based on information provided by sponsors on FAA Form 7460-1, Notice of Proposed Construction or Alteration. If your organization is planning to sponsor any construction or alterations that may affect navigable airspace, you must file FAA Form 7460-1 electronically via:

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>.

For additional information and assistance, please feel free to contact the Obstruction Evaluation Group via email, OEGroup@faa.gov, at 10101 Hillwood Parkway, Fort Worth, Texas, 76177, or (817) 222-5954.

Sincerely,

Rob Lowe
Regional Administrator,
Southwest Region

CC: Obstruction Evaluation Group, AJV-A520

Meaux, Lisa

From: Cook, Charles <Charles.Cook4@fema.dhs.gov>
Sent: Tuesday, December 19, 2023 1:10 PM
To: Meaux, Lisa
Cc: Foltz, Miles; Dracoulis, Danielle
Subject: [EXTERNAL] Howard Road to San Miguel 345 kV Transmission Line Project

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Good afternoon, Ms. Barko, please ensure that you are coordinating with the local floodplain administrator to obtain floodplain permits where required.

Thank you,

Charlie Cook, CFM
Floodplain Management & Insurance Branch Chief
Mitigation Division | Region 6 | FEMA
800 North Loop 288, Denton, TX 76209
O: 940.898.5400 | Cell: 940.268.9952
Email: Charles.Cook4@FEMA.DHS.Gov

Stay connected:



From: [Story, Jason E CIV USARMY CESWF \(USA\)](#)
To: [Jordan, Katie](#)
Cc: [Meaux, Lisa](#); [Williams, Denise](#); [Jetton, Montey E CIV USARMY CESWF \(USA\)](#); [Story, Jason E CIV USARMY CESWF \(USA\)](#)
Subject: [EXTERNAL] RE: Howard Rd to San Miguel 345kV Transmission Line Project
Date: Monday, December 11, 2023 8:24:04 AM

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Dear Katie Jordan:

We will need more information on the proposed alignment near Poteet and Pleasanton to determine if authorization under Section 14 of the Rivers and Harbors Act of 1899, 33 USC 408 (Section 408) is required.

Please send future requests for Section 408 jurisdictional determinations, applicability of Section 408, and other inquiries to CESWF408@usace.army.mil.

Sincerely,

Jason Story
Section 408 Coordinator
Fort Worth District
Biologist
RPEC
U.S. Army Corps of Engineers
817-239-8475
jason.e.story@usace.army.mil

For more information on Section 408, visit the Fort Worth District Section 408 webpage at <https://www.swf.usace.army.mil/Missions/Section-408/> [swf.usace.army.mil]

From: katie.jordan@powereng.com <katie.jordan@powereng.com>
Sent: Friday, December 08, 2023 11:33 AM
To: Story, Jason E CIV USARMY CESWF (USA) <Jason.E.Story@usace.army.mil>
Cc: lisa.barko@powereng.com; denise.williams@powereng.com
Subject: [Non-DoD Source] Howard Rd to San Miguel 345kV Transmission Line Project

Dear Mr. Story,

On behalf of our client, CPS Energy and South Texas Electric Cooperative (STEC), attached please find a proposed project information letter.

Thank you for your assistance with this proposed electric transmission line project. Please contact

the Project Manager, Lisa Meaux, by phone at 1-281-765-5507, or by e-mail at lisa.barko@powereng.com, if you have any questions or require additional information.

Thank you,
Katie Jordan
Environmental Planner I
ENV South Central PM/Planning III Department

1-512-500-0947 (main office)
832-477-6152 (cell)

POWER Engineers, Inc.
www.powereng.com



Go Green! Please print this email only when necessary.

Thank you for helping POWER Engineers be environmentally responsible.

From: [Meaux, Lisa](#)
To: [Williams, Denise](#); [Jordan, Katie](#); [Brewer, Ashley](#)
Subject: FW: SWF-2023-00536 (Howard Road to San Miguel 345 kV Transmission Line Project No. 247247)
Date: Tuesday, December 12, 2023 5:00:03 PM

fyi

LISA BARKO MEAUX
SENIOR PROJECT MANAGER
REGIONAL MANAGER
ENVIRONMENTAL DIVISION

281.765.5507 - direct
713.962.8476 - cell
lisa.barko@powereng.com

POWER Engineers, Inc.
www.powereng.com

From: Gray, Natasha A CIV USARMY CESWF (USA) <Natasha.A.Gray@usace.army.mil>
Sent: Tuesday, December 12, 2023 4:09 PM
To: Meaux, Lisa <lisa.barko@powereng.com>
Cc: Eckert, Annabelle N CIV USARMY CESWF (USA) <Annabelle.N.Eckert@usace.army.mil>
Subject: [EXTERNAL] SWF-2023-00536 (Howard Road to San Miguel 345 kV Transmission Line Project No. 247247)

<p>CAUTION: This Email is from an EXTERNAL source. STOP. THINK before you CLICK links or OPEN attachments.</p>

Dear Ms. Barko Meaux:

Thank you for your letter received December 8, 2023, concerning a proposal for the construction of new double circuit 345 kilovolt transmission line located in Atascosa and Bexar Counties, Texas. The project has been assigned Project Number SWF-2023-00536, please include this number in all future correspondence concerning this project.

Ms. Annabelle Eckert has been assigned as the regulatory project manager for your request and will be evaluating it as expeditiously as possible.

You may be contacted for additional information about your request. For your information, please refer to the Fort Worth District Regulatory Division homepage at <http://www.swf.usace.army.mil/Missions/regulatory> [[swf.usace.army.mil](http://www.swf.usace.army.mil)] and particularly guidance on submittals at <https://swf-apps.usace.army.mil/pubdata/envIRON/regulatory/introduction/submital.pdf> [[swf-](https://swf-apps.usace.army.mil/pubdata/envIRON/regulatory/introduction/submital.pdf)

apps.usace.army.mil] and mitigation at <https://www.swf.usace.army.mil/Missions/Regulatory/Permitting/Mitigation> [swf.usace.army.mil] that may help you supplement your current request or prepare future requests.

If you have any questions about the evaluation of your submittal or would like to request a copy of one of the documents referenced above, please refer to our website at <http://www.swf.usace.army.mil/Missions/Regulatory> [swf.usace.army.mil] or contact Ms. Annabelle Eckert by telephone 817-886-1009, or by email annabelle.n.eckert@usace.army.mil, and refer to your assigned project number. Please note that it is unlawful to start work without a Department of the Army permit if one is required.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey [corpsmapu.usace.army.mil]

Brandon W. Mobley
Chief, Regulatory Division

Please do not mail hard copy documents to Regulatory staff or office, unless specifically requested. For further details on corresponding with us, please view our Electronic Application Submittals special public notice at: <https://www.swf.usace.army.mil/Portals/47/docs/regulatory/publicnotices/2020/PublicNoticeElectronicApplications.pdf?ver=2019-11-21-123723-627> [swf.usace.army.mil]

USACE Fort Worth District Regulatory Division Website
<http://www.swf.usace.army.mil/Missions/Regulatory.aspx> [swf.usace.army.mil]

Please assist us in better serving you by completing the survey at the following website: <https://regulatory.ops.usace.army.mil/customer-service-survey/> [regulatory.ops.usace.army.mil]

Meaux, Lisa

From: Eckert, Annabelle N CIV USARMY CESWF (USA) <Annabelle.N.Eckert@usace.army.mil>
Sent: Tuesday, January 2, 2024 9:22 AM
To: Meaux, Lisa
Subject: [EXTERNAL] RE: SWF-2023-00536 (Howard Road to San Miguel 345 kV Transmission Line Project No. 247247)

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Good morning Ms. Barko Meaux,

I am following up on your request. Please let me know how I can be of assistance.

Very Respectfully,

Annabelle Eckert
Project Manager
US Army Corps of Engineers
Fort Worth District CESWF-RDE
819 Taylor Street, Room 3A37
Fort Worth, Texas 76102-0300
Cell: 817.319.9859
Office: 817.886.1009
Annabelle.N.Eckert@USACE.Army.Mil

Regulatory webpage: www.swf.usace.army.mil/Missions/Regulatory [swf.usace.army.mil]

Application forms: www.swf.usace.army.mil/Missions/Regulatory/Permitting/Application-Submittal-Forms [swf.usace.army.mil]

Application submittal process: www.swf.usace.army.mil/Missions/Regulatory/Electronic-Submittal-Instructions [swf.usace.army.mil]
(email to CESWF-Permits@usace.army.mil)

Report an alleged violation: www.swf.usace.army.mil/Missions/Regulatory/Enforcement [swf.usace.army.mil] (email to CESWF-Compliance@usace.army.mil)

Customer service survey: <https://regulatory.ops.usace.army.mil/ords/f?p=136:4> [regulatory.ops.usace.army.mil]

From: Eckert, Annabelle N CIV USARMY CESWF (USA)
Sent: Wednesday, December 13, 2023 7:51 AM
To: lisa.barko@powereng.com
Subject: RE: SWF-2023-00536 (Howard Road to San Miguel 345 kV Transmission Line Project No. 247247)

Good morning Ms. Barko Meaux,

Thank you for your submittal. I am unsure of what you are requesting from the USACE. Are you requesting a preapplication meeting? Please let me know how I can best assist you.

Thank you.

Very Respectfully,

Annabelle Eckert
Project Manager
US Army Corps of Engineers
Fort Worth District CESWF-RDE
819 Taylor Street, Room 3A37
Fort Worth, Texas 76102-0300
Cell: 817.319.9859
Office: 817.886.1009
Annabelle.N.Eckert@USACE.Army.Mil

Regulatory webpage: www.swf.usace.army.mil/Missions/Regulatory [swf.usace.army.mil]

Application forms: www.swf.usace.army.mil/Missions/Regulatory/Permitting/Application-Submittal-Forms [swf.usace.army.mil]

Application submittal process: www.swf.usace.army.mil/Missions/Regulatory/Electronic-Submittal-Instructions [swf.usace.army.mil]
(email to CESWF-Permits@usace.army.mil)

Report an alleged violation: www.swf.usace.army.mil/Missions/Regulatory/Enforcement [swf.usace.army.mil] (email to CESWF-Compliance@usace.army.mil)

Customer service survey: <https://regulatory.ops.usace.army.mil/ords/f?p=136:4> [regulatory.ops.usace.army.mil]

From: Gray, Natasha A CIV USARMY CESWF (USA) <Natasha.A.Gray@usace.army.mil>
Sent: Tuesday, December 12, 2023 4:09 PM
To: lisa.barko@powereng.com
Cc: Eckert, Annabelle N CIV USARMY CESWF (USA) <Annabelle.N.Eckert@usace.army.mil>
Subject: SWF-2023-00536 (Howard Road to San Miguel 345 kV Transmission Line Project No. 247247)

Dear Ms. Barko Meaux:

Thank you for your letter received December 8, 2023, concerning a proposal for the construction of new double circuit 345 kilovolt transmission line located in Atascosa and Bexar Counties, Texas. The project has been assigned Project Number SWF-2023-00536, please include this number in all future correspondence concerning this project.

Ms. Annabelle Eckert has been assigned as the regulatory project manager for your request and will be evaluating it as expeditiously as possible.

You may be contacted for additional information about your request. For your information, please refer to the Fort Worth District Regulatory Division homepage at <http://www.swf.usace.army.mil/Missions/regulatory> [swf.usace.army.mil] and particularly guidance on submittals at <https://swf-apps.usace.army.mil/pubdata/envIRON/regulatory/introduction/submittal.pdf> [swf-apps.usace.army.mil] and

mitigation at <https://www.swf.usace.army.mil/Missions/Regulatory/Permitting/Mitigation/swf.usace.army.mil> that may help you supplement your current request or prepare future requests.

If you have any questions about the evaluation of your submittal or would like to request a copy of one of the documents referenced above, please refer to our website at <http://www.swf.usace.army.mil/Missions/Regulatory/swf.usace.army.mil> or contact Ms. Annabelle Eckert by telephone 817-886-1009, or by email annabelle.n.eckert@usace.army.mil, and refer to your assigned project number. Please note that it is unlawful to start work without a Department of the Army permit if one is required.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey/corpsmapu.usace.army.mil

Brandon W. Mobley
Chief, Regulatory Division

Please do not mail hard copy documents to Regulatory staff or office, unless specifically requested. For further details on corresponding with us, please view our Electronic Application Submittals special public notice at:

<https://www.swf.usace.army.mil/Portals/47/docs/regulatory/publicnotices/2020/PublicNoticeElectronicApplications.pdf?ver=2019-11-21-123723-627/swf.usace.army.mil>

USACE Fort Worth District Regulatory Division Website

<http://www.swf.usace.army.mil/Missions/Regulatory.aspx/swf.usace.army.mil>

Please assist us in better serving you by completing the survey at the following website:

<https://regulatory.ops.usace.army.mil/customer-service-survey/regulatory.ops.usace.army.mil>



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Texas Coastal Ecological Services Field Office
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
Phone: (281) 286-8282 Fax: (281) 488-5882

In Reply Refer To:
Project Code: 2024-0025151
Project Name: San Miguel - Howard Road 345kV T-Line

December 11, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Corpus Christi, and Alamo, Texas, have combined administratively to form the Texas Coastal Ecological Services Field Office. All project related correspondence should be sent to the field office address listed below responsible for the county in which your project occurs:

Project Leader; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058

Angelina, Austin, Brazoria, Brazos, Chambers, Colorado, Fayette, Fort Bend, Freestone, Galveston, Grimes, Hardin, Harris, Houston, Jasper, Jefferson, Leon, Liberty, Limestone, Madison, Matagorda, Montgomery, Newton, Orange, Polk, Robertson, Sabine, San Augustine, San Jacinto, Trinity, Tyler, Walker, Waller, and Wharton.

Assistant Field Supervisor, U.S. Fish and Wildlife Service; 4444 Corona Drive, Ste 215; Corpus Christi, Texas 78411

Aransas, Atascosa, Bee, Brooks, Calhoun, De Witt, Dimmit, Duval, Frio, Goliad, Gonzales, Hidalgo, Jackson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kleberg, La Salle, Lavaca, Live Oak, Maverick, McMullen, Nueces, Refugio, San Patricio, Victoria, and Wilson.

U.S. Fish and Wildlife Service; Santa Ana National Wildlife Refuge; Attn: Texas Ecological Services Sub-Office; 3325 Green Jay Road, Alamo, Texas 78516

Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as

12/11/2023

amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <http://www.fws.gov/media/endangered-species-consultation-handbook>.

Non-Federal entities may consult under Sections 9 and 10 of the Act. Section 9 and Federal regulations prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined (50 CFR § 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR § 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Should the proposed project

12/11/2023

have the potential to take listed species, the Service recommends that the applicant develop a Habitat Conservation Plan and obtain a section 10(a)(1)(B) permit. The Habitat Conservation Planning Handbook is available at: <https://www.fws.gov/library/collections/habitat-conservation-planning-handbook>.

Migratory Birds:

In addition to responsibilities to protect threatened and endangered species under the Act, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts visit: <https://www.fws.gov/program/migratory-birds>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable National Environmental Policy Act (NEPA) documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Texas Coastal Ecological Services Field Office

17629 El Camino Real, Suite 211

Houston, TX 77058-3051

(281) 286-8282

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Austin Ecological Services Field Office

1505 Ferguson Lane

Austin, TX 78754-4501

(512) 937-7371

12/11/2023

PROJECT SUMMARY

Project Code: 2024-0025151
Project Name: San Miguel - Howard Road 345kV T-Line
Project Type: Transmission Line - New Constr - Above Ground
Project Description: Study Area for routing and siting of transmission line
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@28.90457215,-98.52702286905497,14z>



Counties: Atascosa and Bexar counties, Texas

ENDANGERED SPECIES ACT SPECIES

There is a total of 21 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 3 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

12/11/2023

BIRDS

NAME	STATUS
<p>Golden-cheeked Warbler <i>Setophaga chrysoparia</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/33</p>	Endangered
<p>Piping Plover <i>Charadrius melodus</i></p> <p>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ Wind related projects within migratory route. ▪ Wind Energy Projects <p>Species profile: https://ecos.fws.gov/ecp/species/6039</p>	Threatened
<p>Rufa Red Knot <i>Calidris canutus rufa</i></p> <p>There is proposed critical habitat for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ Wind Related Projects Within Migratory Route ▪ Wind Energy Projects <p>Species profile: https://ecos.fws.gov/ecp/species/1864</p>	Threatened

AMPHIBIANS

NAME	STATUS
<p>San Marcos Salamander <i>Eurycea nana</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6374</p>	Threatened
<p>Texas Blind Salamander <i>Eurycea rathbuni</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ Effects to water quality and quantity in the Edwards Aquifer and to surface waters in the recharge and contributing zones of the Edwards Aquifer must be considered if they adversely affect water quality and quantity in Texas blind salamander habitat <p>Species profile: https://ecos.fws.gov/ecp/species/5130</p>	Endangered

FISHES

NAME	STATUS
<p>Fountain Darter <i>Etheostoma fonticola</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5858</p>	Endangered

12/11/2023

INSECTS

NAME	STATUS
[no Common Name] Beetle <i>Rhadine exilis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6942	Endangered
[no Common Name] Beetle <i>Rhadine infernalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3804	Endangered
Comal Springs Dryopid Beetle <i>Stygoparnus comalensis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7175	Endangered
Comal Springs Riffle Beetle <i>Heterelmis comalensis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3403	Endangered
Helotes Mold Beetle <i>Batrisodes venyivi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1149	Endangered
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

ARACHNIDS

NAME	STATUS
Cokendolpher Cave Harvestman <i>Texella cokendolpheri</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/676	Endangered
Government Canyon Bat Cave Meshweaver <i>Cicurina vespera</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7037	Endangered
Government Canyon Bat Cave Spider <i>Tayshaneta microps</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/553	Endangered
Madla Cave Meshweaver <i>Cicurina madla</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2467	Endangered
Robber Baron Cave Meshweaver <i>Cicurina baronia</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2361	Endangered

12/11/2023

CRUSTACEANS

NAME	STATUS
Peck's Cave Amphipod <i>Stygobromus (=Stygonectes) pecki</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8575	Endangered

FLOWERING PLANTS

NAME	STATUS
Black Lace Cactus <i>Echinocereus reichenbachii var. albertii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5560	Endangered
Texas Wild-rice <i>Zizania texana</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/805	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)
-

12/11/2023

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

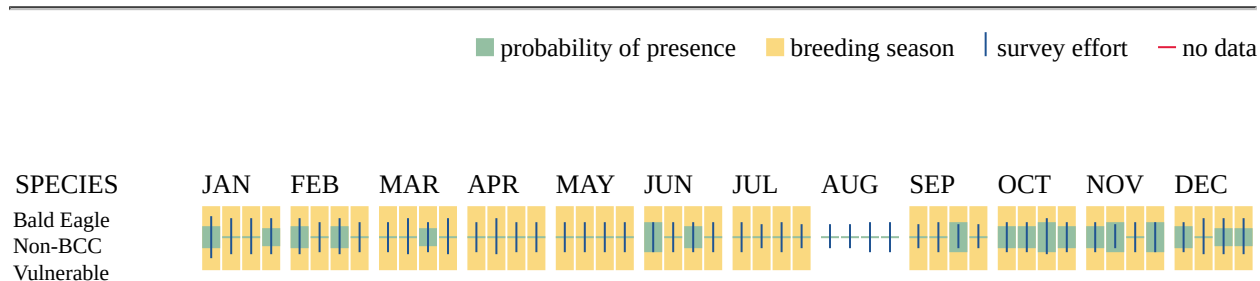
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



12/11/2023

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

12/11/2023

NAME	BREEDING SEASON
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Eastern Meadowlark <i>Sturnella magna</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9455	Breeds Apr 25 to Aug 31
Gull-billed Tern <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Little Blue Heron <i>Egretta caerulea</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9477	Breeds Mar 10 to Oct 15
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5511	Breeds elsewhere
Mountain Plover <i>Charadrius montanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638	Breeds elsewhere
Orchard Oriole <i>Icterus spurius</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9457	Breeds Jun 10 to Aug 15
Painted Bunting <i>Passerina ciris</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere

12/11/2023

NAME	BREEDING SEASON
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Sprague's Pipit <i>Anthus spragueii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8964	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

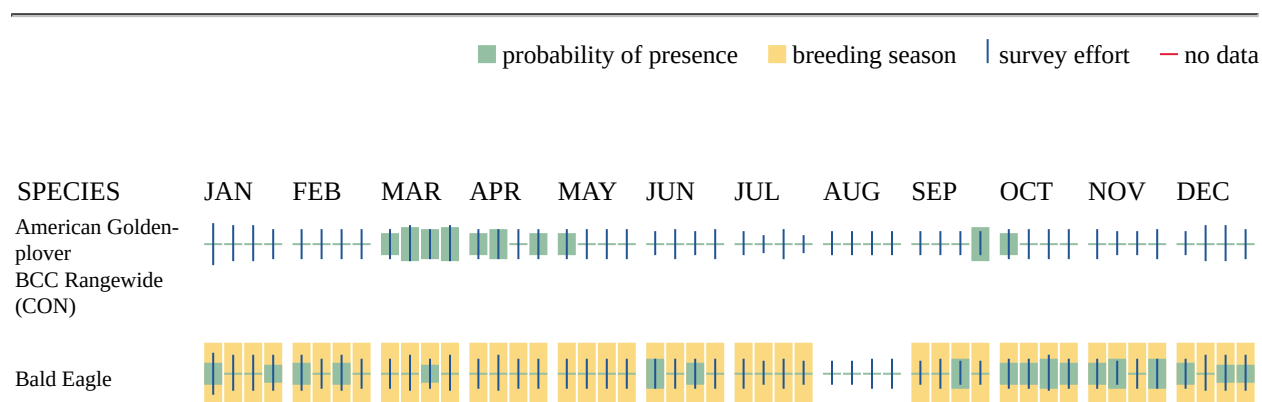
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



12/11/2023

Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: POWER Engineers Inc.
Name: Yancey Bissonnette
Address: 85 NE Loop 410 Ste 207
City: San Antonio
State: TX
Zip: 78216
Email: yancey.bissonnette@powereng.com
Phone: 2104390155

Meaux, Lisa

From: noreply@thc.state.tx.us
Sent: Tuesday, January 16, 2024 12:57 PM
To: Meaux, Lisa; reviews@thc.state.tx.us
Subject: [EXTERNAL] Proposed Howard Road to San Miguel 345 kV Transmission Line Project

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.



TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas

THC Tracking #202404358

Date: 01/16/2024

Proposed Howard Road to San Miguel 345 kV Transmission Line Project

Atascosa and Bexar

Description: Construction of a new double-circuit 345 kV transmission line in Atascosa and Bexar counties.

Dear Lisa Barko Meaux:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Caitlin Brashear and Mary Galindo, has completed its review and has made the following determinations based on the information submitted for review:

Archeology Comments

- An archeological survey is required. You may obtain lists of archeologists in Texas through the Council of Texas Archeologists and the Register of Professional Archaeologists. Please note that other qualified archeologists not included on these lists may be used. If this work will occur on land owned or controlled by a state agency or political subdivision of the state, a Texas Antiquities Permit must be obtained from this office prior to initiation of fieldwork. All fieldwork should meet the Archeological Survey Standards for Texas. A report of investigations is required and should be produced in conformance with the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation and submitted to this office for review. Reports for a Texas Antiquities Permit should also meet the Council of Texas Archeologists Guidelines for Cultural Resources Management Reports and the Texas Administrative Code. In addition, any buildings 45 years old or older that are located on or adjacent to the tract should be documented with photographs and included in the report. To facilitate review and make project information available through the Texas Archeological Sites Atlas, we appreciate the submittal of survey area shapefiles via the Shapefile tab on eTRAC concurrently with submission of the

draft report. Please note that while appreciated for Federal projects this is required for projects conducted under a Texas Antiquities Permit. For questions on how to submit these, please visit our video training series at:

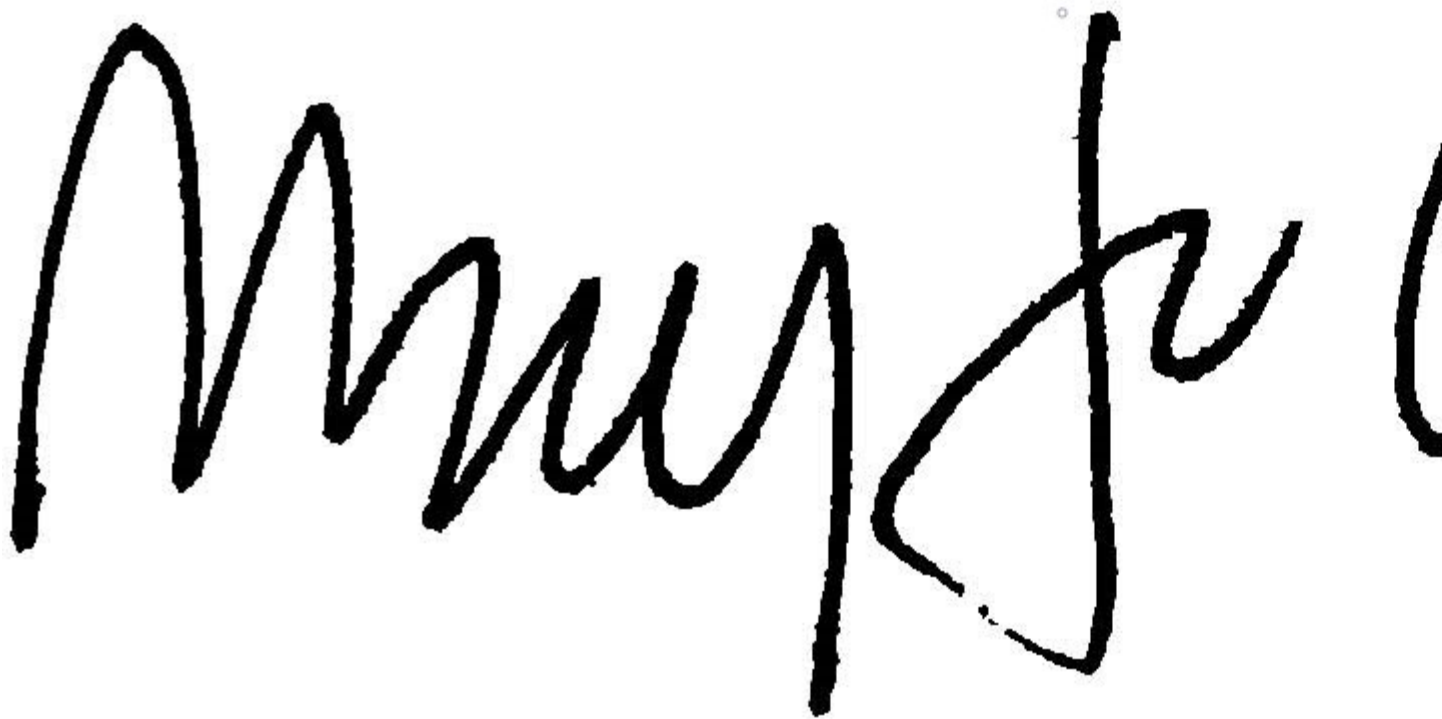
<https://www.youtube.com/playlist?list=PLONbbv2pt4cog5t6mCqZVaEAX3d0MkgQC> [youtube.com]

We have the following comments: Many archeological sites have been recorded in the vicinity of the Study Area, including several with undetermined eligibility for listing on the National Register of Historic Places (NRHP) that are situated within the Study Area. The study area is considered high probability for precontact and historical sites, although given the mapped geology and soils they are likely to be deposited in a shallow context away from water resources. Terraces either side of the Medina River, Leon Creek, Atascosa Creek, and La Parrita Creek are also high probability areas. Parts of the Study Area have been previously developed, lowering the likelihood of intact archeological deposits in those specific areas. We recommend an intensive archeological survey with shovel testing in areas without previous development or without disturbances such as existing roadways. If the anticipated depth of impact will exceed 3 feet, then the survey may include backhoe trenches. Because this project will involve South Texas Electric Cooperative-owned or -controlled properties, a Texas Antiquities Permit will be required before conducting survey across these lands. Once the route has been finalized and all regulatory jurisdictions have been established, please submit a scope of work meeting all applicable state and federal requirements for our review. We welcome submissions through our online eTRAC system. Links to the eTRAC portal and a user guide can be found on our website at <https://www.thc.texas.gov/etrac-system> [thc.texas.gov]. Additionally, should the project ultimately include Federal involvement, any above-ground resources that are 45 years or older within the Area of Potential Effect (APE) will need to be identified and evaluated for listing in the NRHP. Further, any resources identified as eligible will need to be assessed for effects by the proposed project.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: caitlin.brashear@thc.texas.gov, Mary.Galindo@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit <http://thc.texas.gov/etrac-system> [thc.texas.gov].

Sincerely,

A large, handwritten signature in black ink, appearing to read "Brad Patterson". The signature is written in a cursive style with a prominent vertical stroke for the letter 'P'.

for Bradford Patterson, Chief Deputy State Historic Preservation Officer
Deputy Executive Director, Texas Historical Commission

Please do not respond to this email.

From: [Laura Zebehazy](#)
To: [Jordan, Katie](#)
Cc: [Meaux, Lisa](#); [Williams, Denise](#); [WHAB](#); [Russell Hooten](#)
Subject: [EXTERNAL] FW: Howard Rd to San Miguel 345kV Transmission Line Project
Date: Monday, December 11, 2023 2:28:44 PM
Attachments: [TPWD — Wildlife Habitat Assessment Program.pdf](#)

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Good afternoon,

I am forwarding this request to our program's dedicated project coordination email, WHAB@tpwd.texas.gov, to facilitate timely login into our project tracking database and assignment to the appropriate review biologist.

Please let me know if you have any questions.

Sincerely,

Laura Zebehazy, MS, CWB
Program Director
TPWD – Ecological & Environmental Planning Program
Phone: (512)389-4638

From: katie.jordan@powereng.com <katie.jordan@powereng.com>
Sent: Friday, December 8, 2023 11:33 AM
To: Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>
Cc: lisa.barko@powereng.com; denise.williams@powereng.com
Subject: Howard Rd to San Miguel 345kV Transmission Line Project

You don't often get email from katie.jordan@powereng.com. [Learn why this is important \[aka.ms\]](#)

ALERT: This email came from an external source. Do not open attachments or click on links in unknown or unexpected emails.

Dear Ms. Zebehazy,


On behalf of our client, CPS Energy and South Texas Electric Cooperative (STEC), attached please find a proposed project information letter.

Thank you for your assistance with this proposed electric transmission line project. Please contact the Project Manager, Lisa Meaux, by phone at 1-281-765-5507, or by e-mail at lisa.barko@powereng.com, if you have any questions or require additional information.

Thank you,
Katie Jordan
Environmental Planner I
ENV South Central PM/Planning III Department

1-512-500-0947 (main office)
832-477-6152 (cell)

POWER Engineers, Inc.
www.powereng.com

 Go Green! Please print this email only when necessary.
Thank you for helping POWER Engineers be environmentally responsible.



Life's better outside.®

Commissioners

Jeffery D. Hildebrand
Chairman
Houston

Oliver J. Bell
Vice-Chairman
Cleveland

James E. Abell
Kilgore

Wm. Leslie Doggett
Houston

Paul L. Foster
El Paso

Anna B. Galo
Laredo

Robert L. "Bobby" Patton, Jr.
Fort Worth

Travis B. "Blake" Rowling
Dallas

Dick Scott
Wimberley

Lee M. Bass
Chairman-Emeritus
Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

David Yoskowitz, Ph.D.
Executive Director

January 25, 2024

Lisa Barko Meaux
Power Engineers, Incorporated
14090 Southwest Freeway, Suite 300
Sugar Land, TX 77478

RE: Proposed Howard Road to San Miguel 345-kV transmission line project,
Atascosa and Bexar Counties, Texas
Power Engineers Project No. 247247

Dear Ms. Barko Meaux:

Texas Parks and Wildlife Department (TPWD) received the preliminary information request regarding the project referenced above. On behalf of CPS Energy and South Texas Electric Cooperative (STEC), POWER Engineers, Incorporated (POWER) is preparing an Environmental Assessment (EA) and Alternatives Route Analysis to support an application to amend CPS Energy and STEC's regulatory activities associated with the project.

Project Description

CPS Energy and STEC are evaluating the construction of a new double-circuit 345-kilovolt (kV) transmission line in Atascosa and Bexar Counties, Texas. The proposed line would begin at the existing Howard Road Switching Station, located approximately 0.17 mile west of State Highway (SH) 16 and approximately 2.7 miles south of Interstate Highway (IH) 410. The proposed line would extend approximately 50 miles southward to the STEC San Miguel Switching Station, east and adjacent to the San Miguel Power Plant, located approximately 4.0 miles east of SH 16 and approximately 0.6 miles southwest of Farm-to-Market Road (FM) 3387. POWER is collecting and evaluating environmental data for the study area.

TPWD staff reviewed the information provided and offer the following comments and recommendations.

Recommendation: When new construction is the only feasible option, TPWD recommends routing new transmission lines along existing road, pipeline, transmission line or other utility right-of-ways (ROW) or easements to reduce habitat fragmentation. By utilizing previously disturbed areas, existing utility corridors, county roads, private roads, railroads, and highway ROW, adverse impacts to fish and wildlife resources would be mitigated by avoiding and/or minimizing impacts to undisturbed habitats. A copy of *TPWD Recommendations for Electrical Transmission/Distribution Line Design and Construction*, which include general recommendations for transmission line construction, is available online at TPWD's Wildlife Habitat Assessment Program website.

Ms. Lisa Barko Meaux
Page 2 of 14
January 25, 2024

Federal Regulations

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits taking, attempting to take, capturing, killing, selling, purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts, or nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Review of aerial photography and the Ecological Mapping Systems of Texas (EMST), indicate that the study area consists primarily of post oak savanna (grasslands, post oak and live oak motte and woodland), South Texas: disturbance grassland, sandy mesquite savanna grassland, and clayey mesquite woodland and shrubland. Corridors and patches of South Texas: floodplain deciduous shrubland, floodplain hardwood forest and woodland and ramadero woodlands occur throughout the study area. The available habitat in the study area is suitable to provide important nesting and feeding habitat for birds and travel corridors for other wildlife in the area. Additionally, the project area is in the middle of the Central Migratory Flyway through which millions of birds pass during spring and fall migration.

The project study area encompasses Mitchell Lake, an impoundment the U.S. Army Corps of Engineers is restoring due to its national significance in the Central Flyway providing for the needs of over 300 species of birds. Mitchell Lake is also the location of the Mitchell Lake Audubon Center. Data from the eBird online application have documented more than 350 bird species, including state listed and species of greatest conservation need (SGCN), at nearby eBird hotspots including the Mitchell Lake Audubon Center, Medina River Greenway (Mitchell Lake and Pleasanton Road trailheads), Bexar County-Hardy/Mathis Road, and San Miguel Road/CR420 Wetlands hotspot.

Recommendation: TPWD recommends identifying existing utility corridors or other previously disturbed areas (e.g., existing roads, utility easements) to parallel the proposed transmission line. Additionally, TPWD recommends scheduling any vegetation clearing or trampling to occur outside of the March 15 - September 15 migratory bird nesting season in order to comply with the MBTA.

If vegetation clearing must be scheduled to occur during the nesting season, TPWD recommends the vegetation to be impacted should be surveyed for active nests by a qualified biologist. Nest surveys should be conducted no more than five days prior to the scheduled clearing to ensure recently constructed nests are identified. If active nests are observed during surveys, TPWD recommends a 100-foot radius buffer of vegetation remain around nests until eggs have hatched and the young have fledged; however, the size of the buffer zone is dependent on various factors and can be coordinated with the local or regional USFWS office.

Ms. Lisa Barko Meaux
Page 3 of 14
January 25, 2024

The potential exists for birds to collide with transmission lines and associated guy wires and static lines. Bird fatalities can also occur due to electrocution if perching birds simultaneously make contact with energized and grounded structures. Birds most susceptible of colliding with electrical transmission lines (e.g. pelicans, egrets, waterfowl, doves, and shorebirds) occur on many of the eBird hotspots species lists from within the project's study area.

Recommendation: TPWD strongly recommends that transmission lines should be marked with line markers or bird flight diverters to reduce the potential of birds flying into the lines. Line alterations to prevent bird electrocutions should not necessarily be implemented after such events occur as all electrocutions may not be known or documented. Incorporation of preventative measures along portions of the routes that are most attractive to birds (as indicated by frequent sightings) prior to any electrocutions is a preferred alternative.

TPWD recommends the transmission line design should utilize avian safety features described in the publication:

Avian Power Line Interaction Committee (APLIC). 2012. *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*. Edison Electric Institute and APLIC. Washington, D.C.

In particular, the overhead ground wire should be marked with line markers to increase its visibility. Additional recommendations are available in the document entitled, "*TPWD Recommendations for Electrical Transmission/Distribution Line Design and Construction*" available on TPWD's website.

Clean Water Act

Section 404 of the Clean Water Act (CWA) establishes a federal program to regulate the discharge of dredged and fill material into waters of the U.S., including wetlands. The U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) are responsible for making jurisdictional determinations and regulating wetlands and other waters under Section 404 of the CWA. Although the regulation of isolated wetlands has been removed from the USACE permitting process, both isolated and jurisdictional wetlands provide habitat for wildlife and help protect water quality.

According to publicly available topographic maps, it appears that several rivers, and numerous creeks, streams, wetlands, and ponds occur within the project study area.

Recommendation: TPWD recommends developing a route for the proposed transmission line that avoids or minimizes the number of water body crossings.

All waterways and associated floodplains, riparian corridors, and wetlands, regardless of their jurisdictional status, provide valuable wildlife habitat and should be preserved to the maximum extent possible. Natural buffers contiguous to any wetland or aquatic system should remain undisturbed to preserve wildlife cover,

food sources, and travel corridors. Transmission line support structures should be located as far from waterbodies as possible to preserve riparian vegetation.

Aquatic resources in the study area, including those that have been manipulated or are completely manmade, provide habitat for wildlife. The destruction of inert microhabitats in aquatic habitats such as snags, brush piles, fallen logs, and pools should be avoided, as these provide habitat for a variety of fish and wildlife species and their food sources. Necessary waterway crossings should be made perpendicular to channels to minimize disturbance of riparian habitat.

Beneficial management practices (BMP) for erosion control and sediment runoff should be installed prior to construction and maintained until disturbed areas are permanently revegetated using site-specific native vegetation. BMP should be properly installed in order to effectively minimize the amount of sediment and other debris entering the waterways. During construction, trucks and equipment should use existing bridge or culvert structures to cross waterways, ponds or depressional wetlands, and equipment staging areas should be located in previously disturbed areas away from aquatic habitats.

If the proposed project would impact waterways or associated wetlands, TPWD recommends consulting with the USACE regarding potential impacts to waters of the U.S. including jurisdictional determinations, delineations, and mitigation.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*), including their parts, nests, or eggs. The BGEPA provides criminal penalties for persons who, take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof. The BGEPA defines "take" as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.

A 2015 bald eagle occurrence within the study area has been documented in the TXNDD. Two adults were observed in a nest within riparian habitat.

Recommendation: When potential impacts to the bald eagle or golden eagle are anticipated, TPWD recommends consultation with the appropriate USFWS Ecological Services Field Office and Eagle Management Program regarding compliance with the BGEPA. TPWD also recommends coordinating with the department if direct or indirect impacts to bald eagles or golden eagles are anticipated since they are SGCN.

Ms. Lisa Barko Meaux
Page 5 of 14
January 25, 2024

State Regulations

Parks and Wildlife Code, Chapter 64-Birds

Texas Parks and Wildlife Code (PWC), section 64.002, regarding the protection of nongame birds, provides that no person may catch, kill, injure, pursue, or possess a bird that is not a game bird. PWC section 64.003, regarding destroying nests or eggs, provides that, no person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl. PWC chapter 64 does not allow for incidental take.

Although not documented in the TXNDD, many bird species which are not listed as threatened or endangered are protected by chapter 64 of the PWC and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area.

Recommendation: Please review the *Federal Regulations: Migratory Bird Treaty Act* section above for recommendations as they are applicable for chapter 64 of the PWC compliance.

Parks and Wildlife Code, Section 68.015

PWC regulates state listed threatened and endangered animal species. The capture, trap, take, or killing of state listed threatened and endangered animal species is unlawful unless expressly authorized under a permit issued by the USFWS or TPWD. A copy of *Protection of State-Listed Species, TPWD Guidelines*, which includes a list of penalties for take of species, can be found on the TPWD Wildlife Habitat Assessment Program website. State listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647.

The potential occurrence of state listed species in the project area is primarily dependent upon the availability of suitable habitat. Direct impacts to high quality or suitable habitat therefore are directly proportional to the magnitude and potential to directly impact state listed species. State listed reptiles that are typically slow moving or unable to move due to cool temperatures are especially susceptible to being directly impacted during ROW clearing and construction of the transmission line.

Recommendation: TPWD recommends reviewing the most current TPWD annotated county lists of rare species for Atascosa and Bexar Counties, as state listed species could be present depending upon habitat availability. These lists are available online at the TPWD Wildlife Diversity website. Environmental documents prepared for the project should include an inventory of existing natural resources within the alternative transmission line routes. Specific evaluations should be designed to predict project impacts upon these natural resources including potential impacts to state listed species.

Ms. Lisa Barko Meaux
Page 6 of 14
January 25, 2024

The following state listed species have the potential to occur within the study area if suitable habitat is available:

White-faced ibis (*Plegadis chihi*)
White-tailed hawk (*Buteo albicaudatus*)
Wood stork (*Mycteria americana*)
Texas horned lizard (*Phrynosoma cornutum*)
Texas tortoise (*Gopherus berlandieri*)

Birds

The white-faced ibis inhabits marshes, swamps, ponds, and rivers. Freshwater systems are preferred. Isolated nesting colonies have been documented from Oregon to Kansas, but white-faced ibis are more commonly found in Utah, Texas, and Louisiana. In Texas, this species breeds and winters along the Gulf Coast; migrants may occur in the Texas panhandle and west Texas. The white-faced ibis is a colonial nesting species and will construct nests in beds of bulrushes, mats formed by dead vegetation, or trees. Nesting and hatching occur in late spring through early summer.

White-tailed hawks inhabit disjunct breeding areas from southern Texas to Argentina; in the United States, the species' range is restricted to Texas where it occurs year-round. Habitats utilized by this species include prairies, savannah, thornscrub, and woodland. Low trees and shrubs are utilized for nesting, and nests will be used more than once. White-tailed hawks eat a variety of prey items, and both sexes bring food to young.

The wood stork is associated with various habitats featuring shallow, standing water; prairie ponds, ditches, mudflats, flooded fields, and natural wetlands will be utilized by the wood stork. This species will utilize both freshwater and saltwater systems, located in either open or forested areas. The wood stork roosts communally in snags, sometimes in association with other species of wading birds (e.g., herons).

Recommendation: TPWD recommends the project proponent survey the project area to determine the potential of the site to support state listed species or their habitat. Surveying the site prior to construction would aid in protecting state listed species from potential impacts. Please be aware that species not occurring during site surveys may utilize the habitat within the project area at times beyond those during which the survey was conducted, such as seasonally or nocturnally.

Reptiles

Texas horned lizard

Texas horned lizard occurrences in the study area have been documented in the TXNDD as well as by multiple research grade observations in the iNaturalist TPWD-sponsored Herps of Texas project. Suitable habitat for the Texas horned lizard is present within the project study area. The Texas horned lizard can be found in open,

Ms. Lisa Barko Meaux
Page 7 of 14
January 25, 2024

arid, and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees.

If present in the project area, the Texas horned lizard could be impacted by ground disturbing activities, including ROW clearing. A useful indication that the Texas horned lizard may occupy the area is the presence of Harvester ant (*Pogonomyrmex* sp.) nests as they are the primary food source of horned lizards. Texas horned lizards are active above ground when temperatures exceed 75 degrees Fahrenheit. During warmer seasons, they may be able to avoid slow (<15 miles per hour) moving equipment. Texas horned lizards may hibernate on-site in loose soils a few inches below ground during the cooler months (October through April). Construction in these areas could harm hibernating lizards. If horned lizards (nesting, gravid females, newborn young, lethargic from cool temperatures or hibernation) cannot move away from noise and approaching construction equipment, they could be negatively affected by construction activities.

Recommendation: TPWD recommends that a pre-construction survey be conducted to determine if horned lizards are present within the transmission line route corridor, once one has been selected. As stated above, a useful indicator of potential occupancy is the presence of Harvester ants. Surveys should be conducted during warmer months of the year when horned lizards are active.

TPWD recommends avoiding disturbance of the Texas horned lizard and colonies of the Harvester ant during clearing and construction. TPWD recommends a permitted biological monitor be present during construction to attempt to capture and relocate Texas horned lizards if found. If the presence of a biological monitor is not feasible, state listed species observed during construction should be allowed to safely leave the site on their own.

Texas tortoise

Texas tortoise occurrences in the study area have been documented in the TXNDD as well as by many research grade observations in the iNaturalist TPWD-sponsored Herps of Texas project. The Texas tortoise occurs primarily in thornscrub and open woodlands and brush. It feeds primarily on fruits of prickly pear and succulent plants. Texas tortoises have low fecundity; individuals take over 10 years to reach maturity and females do not reproduce every year. Nesting occurs in spring and summer. The Texas tortoise has a home range of approximately five to ten acres. Suitable habitat for the Texas tortoise appears to occur within the project study area. Tortoises are often found near or at the base of prickly pear cactus and may seek shade by crawling under parked vehicles.

Recommendation: TPWD recommends reviewing the Texas tortoise BMP document available online at TPWD's Wildlife Habitat Assessment Program homepage. Contractors and other staff should be made aware that in south Texas, the Texas tortoise is generally inactive from December through January and is therefore likely to be undetectable in a project area during this time. TPWD

Ms. Lisa Barko Meaux
Page 8 of 14
January 25, 2024

recommends a biological monitor be on site during any vegetation clearing to inspect sites subject to disturbance that may provide cover for tortoises (e.g., bases of prickly pear cactus) or provide sites for tortoise pallets (shallow excavations typically at the base of vegetation that are opportunistically occupied by tortoises). As indicated above, tortoises may seek cover (shade) underneath parked vehicles; therefore, TPWD recommends that before driving vehicles that have been parked within the project area, contractors should check underneath the vehicles to ensure no tortoises are present.

If a tortoise is located at the project site, it should be relocated only if it is found in an area in which imminent danger is present. Individuals that must be relocated should be transported to the closest suitable habitat outside of the proposed disturbance area but preferably within its five to ten acre range. After tortoises are removed from the immediate project area, TPWD recommends constructing an exclusion fence as described under *General Construction Recommendations* below.

Reduced speed limits should also be established and enforced in areas in which state listed reptiles could occur.

When inactive, tortoises may occupy the shallow depressions or pallets that are scratched out at the base of vegetative cover; tortoises may also be found sheltering in burrows.

Recommendation: If possible, TPWD recommends completing major ground disturbing activities before late fall or winter when reptiles become inactive and could be utilizing burrows in areas subject to disturbance. If ground disturbing construction activities must occur after October (e.g., to avoid migratory bird nesting season) in areas of suitable tortoise habitat, TPWD recommends surveying those areas for tortoises or indications of tortoise presence, e.g., the presence of burrows or pallets under prickly pear. If tortoises or indications of tortoise presence is observed, TPWD-Ecological and Environmental Planning Program staff should be contacted.

Species of Greatest Conservation Need

In addition to state and federally protected species, TPWD tracks species considered to be SGCN that, due to limited distributions and/or declining populations, face threat of extirpation or extinction but currently lack the legal protection given to threatened or endangered species. Special landscape features, natural communities, and SGCNs are rare resources for which TPWD actively promotes conservation, and TPWD considers it important to evaluate and, if necessary, minimize impacts to such resources to reduce the likelihood of endangerment and preclude the need to list SGCN as threatened or endangered in the future. These species and communities are tracked in the TXNDD. The most current and accurate TXNDD data can be requested from the TXNDD website.

Ms. Lisa Barko Meaux
Page 9 of 14
January 25, 2024

Please note that the absence of TXNDD information in an area does not imply that a species is absent from that area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and **cannot be used as presence/absence data**. This information cannot be substituted for on-the-ground surveys.

Determining the actual presence of a species in an area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can only be determined with repeated negative observations and consideration of all the variable factors contributing to the lack of detectable presence.

Suitable habitat for the following SGCN species may occur in the project area. The following BMPs are provided to assist in project planning to avoid/minimize potential impacts.

SGCN Amphibians

Strecker's chorus frog (*Pseudacris streckeri*)

Strecker's chorus frog occurrences in the study area have been documented in iNaturalist application. This species is found primarily in terrestrial habitats including wooded floodplains, prairies and cultivated fields but can occur in aquatic habitats. This species burrows into the soil when inactive. The breeding season for the chorus frog is typically January through April or May. Larvae develop in flooded fields, ditches, small ponds, or other temporary bodies of water.

Recommendation: TPWD recommends the project proponent inform employees and contractors of the potential for the rare Strecker's chorus frog to occur in the project area. To avoid potential impacts to this species, TPWD recommends avoiding disturbance to streams, creeks, wetlands, and temporary bodies of water.

SGCN Fish

Guadalupe bass (*Micropterus treculii*)

Guadalupe bass occurrences in the study area have been documented in the TXNDD as well as by many research grade observations in the iNaturalist application including the Fishes of Texas project. The Guadalupe bass is endemic to the streams of the northern and eastern Edwards Plateau and prefer lentic habitats, usually with clear water and consistent temperatures.

Ms. Lisa Barko Meaux
Page 10 of 14
January 25, 2024

Texas shiner (*Notropis amabilis*)

There is one TXNDD record for the SGCN Texas shiner located within the study area. Habitat for this fish species typically consists of rocky or sandy runs and pools.

Recommendation: TPWD recommends taking measures to avoid impacts to aquatic and riparian habitats which would help minimize potential negative impacts to SGCN fish. Waterways in the project area should be spanned and care taken to avoid multiple crossings of creeks and rivers or installing lines parallel to waterways and therefore removing large sections of riparian habitat. River and creek crossings should be located in previously disturbed areas to avoid further fragmentation of the riparian corridors associated with these waterways.

TPWD also recommends implementing BMP to prevent erosion and sedimentation into waterways. Erosion and sediment control measures include temporary or permanent seeding (with native plants), mulching, earth dikes, silt fences, sediment traps, and sediment basins. Examples of post-construction BMPs include vegetation systems (biofilters) such as grass filter strips and vegetated swales as well as retention basins capable of treating any additional runoff. Please also refer to the General Construction Recommendations section of this letter for erosion and seed/mulch stabilization materials TPWD recommends utilizing and avoiding.

SGCN Mammals

Western hog-nosed skunk (*Conepatus leuconotus*)

The western hog-nosed skunk is generally solitary, nocturnal, and unafraid of humans. In south Texas, they inhabit mesquite brushland and improved pastures within semi-open native grasslands. The project area may contain suitable habitat for this species.

Eastern and Western spotted skunks (*Spilogale putorius*; *S. gracilis*)

The TXNDD contains occurrences of both the eastern and western spotted skunk within the project area. Because the plains spotted skunk is the only subspecies of the Eastern spotted skunk that is found in Texas, the TXNDD eastern spotted skunk occurrence represents the plains spotted skunk subspecies. The eastern spotted skunk is a generalist, occurring in open fields, prairies, and crop land as well as woodlands and rocky canyons. They may den in hollow trees or building attics in urban areas.

The western spotted skunk occurs in a variety of habitats and often occurs in close association with humans. Habitats may include brushy canyons and semi-arid brushlands where skunks may den in borrows, hollow logs, brush piles, or under buildings.

Recommendation: TPWD recommends taking precautions to avoid impacts to SGCN fauna if encountered during construction activities. Wildlife encountered during construction should be allowed to safely leave the premises.

Ms. Lisa Barko Meaux
Page 11 of 14
January 25, 2024

SGCN Reptiles

Texas indigo snake (*Drymarchon melanurus erebennus*).

Texas indigo snake occurrences in the study area have been documented by research grade observations in the iNaturalist TPWD-sponsored Herps of Texas project. The Texas indigo snake is the largest nonvenomous snake in North America and is typically associated with aquatic habitats including creeks, streams, ponds, and drainages. The riparian corridors along rivers, streams, and ditches in the project area provide suitable habitat for this species. Due to its high metabolism, it has a large home range in which it searches for prey and may be encountered away from aquatic habitats.

Recommendation: Because all snakes are generally perceived as a threat and killed when encountered during vegetation clearing, TPWD recommends project plans include comments to inform contractors of the potential for SGCN snakes to occur in the project area. The snake species described here is non-venomous; contractors should be advised to avoid impacts to these species and other snakes as long as the safety of the workers is not compromised. For the safety of workers and preservation of a natural resource, attempting to catch, relocate and/or kill non-venomous or venomous snakes is discouraged by TPWD. If encountered, snakes should be permitted to safely leave project areas on their own. TPWD encourages construction sites to have a “no kill” policy in regard to wildlife encounters.

SGCN Plants and Communities

The TXNDD has documented historic and more recent occurrences of a number of SGCN plants in the project study area. These species and other SGCN plant species occur over a wide variety of habitat types and could be present throughout the project study area. Species that may potentially occur in the area include, but is not limited to:

Burridge greenthread (*Thelesperma burridgeanum*)
Drummond’s rushpea (*Hoffmannseggia drummondii*)
Elmendorf’s onion (*Allium elmendorffii*)
Low spurge (*Euphorbia peplidion*)
Parks’ jointweed (*Polygonella parksii*)
Sandhill woollywhite (*Hymenopappus carrizoenus*)
Texas peachbush (*Prunus texana*)

Post Oak-Black Hickory Series (*Quercus stellata-Carya texana* series)

Recommendation: TPWD recommends that areas proposed for disturbance be surveyed for SGCN plant species where suitable habitat is present. On-the-ground surveys should be performed by a qualified biologist familiar with the identification of these species. Surveys should be conducted when the species is most detectable and identifiable (usually during their respective flowering periods), and disturbance of these species should be avoided during construction to the extent feasible. If these plants are found in the path of construction, this office should be

Ms. Lisa Barko Meaux
Page 12 of 14
January 25, 2024

contacted for further coordination and possible salvage of plants and/or seeds for seed banking. Plants not in the direct path of construction should be protected by markers or fencing and by instructing construction crews to avoid any harm.

Beneficial Management Practices

TPWD recommends implementing the following BMP to avoid or minimize impacts to wildlife and SGCN, including state listed SGCN, potentially occurring at the construction site for this project:

1. In general, TPWD recommends the judicious use and placement of sediment control fence to exclude wildlife from discrete areas to be disturbed. In many cases, sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife access to construction areas. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained for the life of the project and only be removed after the project activities are completed and the disturbed sites have been revegetated or otherwise stabilized. Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.
2. For soil stabilization and/or revegetation of disturbed areas within the proposed project area, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding due to a reduced risk to wildlife. If erosion control blankets or mats would be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting and hydromulch containing microplastics should be avoided.
3. TPWD recommends designing the project to minimize removal of vegetation and retain native habitats. TPWD recommends that precautions be taken to avoid impact to SGCN flora and fauna, natural plant communities, and priority habitat types of the ecoregion while working in Atascosa and Bexar Counties, or if encountered during project construction, operation, and maintenance activities. Areas exhibiting a native grass and forbs component should be protected from disturbance and from introduction of non-native vegetation. TPWD encourages clearly marking areas found to contain rare plants as work zone avoidance areas prior to construction, maintenance, and operation activities.
4. TPWD recommends informing employees and contractors of the potential for state listed species and other SGCN to occur in the project area and to avoid impacts to

all wildlife that are encountered. Wildlife observed during construction should be allowed to safely leave the site or be translocated to a nearby area with similar habitat that would not be disturbed during construction. TPWD recommends that any translocations of reptiles be the minimum distance possible, no greater than one mile, and preferably with 100-200 yards from the initial encounter location. For purposes of relocation, surveys, monitoring, and research, state listed species may only be handled by persons with the appropriate authorization obtained through the TPWD Wildlife Permits Program. For more information on this authorization, please contact the Wildlife Permits Office at (512) 389-4647.

5. Waterways, floodplains, riparian corridors, lakes, and wetlands provide valuable wildlife habitat, and TPWD recommends protecting them to the maximum extent possible. TPWD recommends establishing disturbance-free buffers contiguous to wetlands or aquatic systems to preserve wildlife cover, food sources, and travel corridors and constructing the transmission line to span all creeks. During construction, trucks and equipment should use existing bridges to cross creeks. Erosion control measures should be installed prior to construction and maintained until disturbed areas are permanently revegetated using site-specific native vegetation.
6. Where trenching or other excavation is involved in construction, TPWD recommends contractors keep trenching, excavation, and backfilling crews close together to minimize the number of trenches or excavation areas left open at any given time during construction. Any holes left open for more than two daylight hours should be inspected for the presence of trapped wildlife prior to backfilling. TPWD recommends any open trenches or excavation areas be covered overnight and inspected every morning to ensure no wildlife species have been trapped. If trenches and excavation areas cannot be backfilled the day of initial excavation or covered overnight, then escape ramps should be installed, if feasible, at least every 300 feet. Escape ramps consist of short lateral trenches or wooden planks sloping to the surface at an angle less than 45 degrees (1:1).
7. Significant declines in the population of migrating monarch butterflies (*Danaus plexippus*), a federal candidate species, have led to widespread concern about this species and other native insect pollinator species due to reduction in native floral resources. To support pollinators and migrating monarchs, TPWD encourages the establishment of native wildflower habitats on private and public lands. Infrastructure ROW can provide habit for a diverse community of pollinators, providing food, breeding, or nesting opportunities. Infrastructure ROW extend across a variety of landscapes and can aid dispersal of pollinators by linking fragmented habitats. By acting as refugia for pollinators in otherwise inhospitable landscapes, this habitat can contribute to the maintenance of healthy ecosystems and provide ecological services such as crop pollination. The publication, Monarch Habitat Development on Utility Rights of Way, can be found at the TPWD Wildlife Habitat Assessment Program webpage. TPWD encourages the project proponent to restore or revegetate impacted areas with vegetation that provides habitat for monarch butterflies and other pollinator species. Species appropriate for

Ms. Lisa Barko Meaux
Page 14 of 14
January 25, 2024

establishment within the project area can be found by accessing the Lady Bird Johnson Wildflower Center, working with TPWD biologist to develop an appropriate list of species, or utilizing resources found at the Monarch Watch website or the Xerces Society's Guidelines webpage. For areas of the site that already exhibit floral resources and for areas that are planted with floral resources, TPWD recommends incorporating pollinator conservation into maintenance plans for the site to promote and sustain the availability of flowering species throughout the growing season. TPWD recommends scheduling vegetation maintenance to occur after seeds from pollinator plants have been released and avoiding herbicide that affect floral resources.

8. To aid in the scientific knowledge of a species' status and current range, TPWD encourages reporting encounters of SGCN to the TXNDD following the data submittal instructions found at the *TPWD Texas Natural Diversity Database: Submit Data* webpage. An additional method for reporting observations of species is through the iNaturalist community app where plant and animal observations are uploaded from a smartphone. The observer then selects to add the observation to specific TPWD Texas Nature Tracker Projects appropriate for the taxa observed, including Herps of Texas, Birds of Texas, Texas Eagle Nests, Texas Whooper Watch, Mammals of Texas, Rare Plants of Texas, Bees & Wasps of Texas, Terrestrial Mollusks of Texas, Texas Freshwater Mussels, Fishes of Texas, and All Texas Nature.

TPWD advises review and implementation of these recommendations in the preparation of the environmental document for the project. Please contact me at (361) 431-6003 or russell.hooten@tpwd.texas.gov if you have any questions or we may be of further assistance.

Sincerely,



Russell Hooten
Wildlife Habitat Assessment Program
Wildlife Division

/rh 51769



February 14, 2024

Ms. Lisa Barko Meaux
Senior Project Manager/Regional Manager
POWER Engineers, Inc.
14090 Southwest Freeway, Suite 300
Sugar Land, TX 77478

Re: Proposed Howard Road to San Miguel 345 kV Transmission Line Project (San Antonio South Reliability Project) in Atascosa and Bexar Counties, Texas
POWER Engineers, Inc. Project No. 247247

Dear Ms. Meaux:

The San Antonio Water System has reviewed the general information and area identified in your letter and attachment dated December 8, 2023. Based on the limited detail provided, we have not identified any specific environmental, cultural or land use constraints directly between the described end points.

However, please note SAWS does have facilities and property within the overall study area that includes Mitchell Lake and adjacent property that is currently being developed as a wetlands project at 16795 S. US Highway 281, the Leon Creek Water Recycling Center located at 1104 Mauermann Rd., and the Steven M. Clouse Water Recycling Center at 3495 Valley Road. Additional pump stations and other components of SAWS infrastructure may also be located within the study area. SAWS reserves the right to update its position and the information provided within this letter as more defined routes and areas are identified.

Please contact Mark Brewton at (210) 233-3771 or mark.brewton@saws.org if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Andrea L. H. Beymer".

Andrea L. H. Beymer, P.E.
Executive Vice President/Chief Operating Officer

By email: lisa.barko@powereng.com

Meaux, Lisa

From: Therese Ybarra (Planning) <Therese.Ybarra@sanantonio.gov>
Sent: Thursday, December 21, 2023 9:36 AM
To: Meaux, Lisa
Subject: [EXTERNAL] Proposed Howard Road to San Miguel - Transmission Line Project
Attachments: PE - Transmission Line Project.pdf

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Greetings Ms. Meaux,

On behalf of the City of San Antonio's Planning Department, Interim Director, Rudy Nino Jr., we would like to thank you for your memo regarding the Transmission Line Project from Howard Road (San Antonio) to San Miguel.

We are always happy to help in every possible way, however, the information being sought out regarding environmental & land use constraints, permits and easements for the project, may be obtained with the **City of San Antonio's Development Services Department (DSD)**. We took some time to confirm references, and listed the contact information below:

- ❖ **DSD CUSTOMER SERVICE:** 210-207-1111
- ❖ **DSD WEB LINK:** <https://www.sa.gov/Directory/Departments/DSD> [sa.gov]
- ❖ **DSD ENVIRONMENTAL & LAND USE INFO:** Ms. Lesle.zavala@sanantonio.gov / 210-207-0007
- ❖ **DSD PERMITS:** <https://www.sa.gov/Directory/Departments/DSD/CES/Permits-Licenses> [sa.gov]

We hope this information is useful.

Happy Holidays!

Sincerely,

Therese Ybarra

Executive Secretary to the Director
City of San Antonio, Planning Department
210-207-0147 (office)

Meaux, Lisa

From: Britni Van Curan <acrd@co.atascosa.tx.us>
Sent: Friday, January 5, 2024 12:08 PM
To: Meaux, Lisa
Cc: Eliseo Perez
Subject: [EXTERNAL] Howard Road to San Miguel Project Questions

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Hello, Lisa!

Commissioner Perez, Atascosa County Precinct 3, received your letter and asked me to reach out on behalf of all four precincts to help coordinate any potential permits and to understand the scope of this project.

I understand that you are still in the planning stages of this, but I would appreciate any information you can provide on the potential paths you are looking to follow. There are possibly a few permits that might be required including floodplain permits if you come through the floodplain and County Right-of-Way permits if you come down any county roads.

Atascosa County has been experiencing quite a bit of subdivision growth, so I can help answer the question about major proposed development when we have a better idea of the routes you are considering.

I look forward to working with you on this as you improve our electrical infrastructure.

Thank you!

Britni Van Curan
Atascosa County Rural Development
1 Courthouse Circle Dr. Ste. 106 Jourdanton, TX 78026
830-769-2748
<http://www.atascosacounty.texas.gov/page/atascosa.911Addressing>

Meaux, Lisa

From: Brach, Robert G. <RBrach@bexar.org>
Sent: Tuesday, December 19, 2023 1:17 PM
To: Meaux, Lisa
Cc: Flores, Javier; Wegmann, David; Gruenburg, Cate
Subject: [EXTERNAL] Land Use Constraints within Study Boundary Area of Proposed Howard Road to San Miguel 345 KV Transmission Line Project in Bexar County
Attachments: Permit Contacts - November 3 2023.pdf; Master Development Plan Summary.pdf

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Hi Lisa,

There are no Land Use Restrictions imposed by Bexar County within the unincorporated areas of Bexar County. Please check with the City of San Antonio for any Land Use Restrictions they may apply in the unincorporated areas of Bexar County.

Attached is list of permits required by Bexar County (Permit Contacts PDF) related to your project with a brief description of the permit with links to obtain additional information.

Current active developments within the area are:

MDP Number	Project Name	Approx Completion
22-00021	Camino Real	Inside COSA Municipal Limits
21-00064	Cline Tract	0%
21-00060	Copper Ridge	50%
14-00002	Escondido Estates	53%
22-00048	Haller Tract	0%
18-00016	Lonesome Dove	101%
22-00017	Lonesome Dove Estates	101%
21-00043	Medina River Tract	0%
21-00051	Palo Alto Pointe	0%
18-900004	Palo Alto Villas	17%
22-00004	Preserve at Medina River	61%
19-00002	Riverbend Ranch	Inside COSA Municipal Limits
21-00057	Roosevelt Landing	20%
22-00001	Savannah Woods	0%
21-00058	Verdin	0%
23-00011	Wright Carpenter Tract	0%

For more information regarding the above development, please see the Master Development Plan Summary PDF.

If you have any questions, please let me know.

Sincerely,

Bob Brach PE
Development Services Engineer

210-335-1243



COUNTY OF BEXAR

PUBLIC WORKS DEPARTMENT

1948 Probandt
San Antonio, Texas 78214
Main 210-335-6700

Summary of Bexar County Permits

- A. **Storm Water Quality (SWQ) Permit** – (Permit Cost: \$500) A Bexar County Storm Water Quality Permit is required when one (1) or more acres of soil are being disturbed on the site or as part of Common Plan of Development. You need an issued SWQ Permit before the Public Works signs the Permit Verification Form. Submittal requirements are (see: <https://www.bexar.org/2059/Storm-Water-Quality-Site-Development-Per>):
1. Application (signed)
 2. Fee
 3. Copy of Storm Water Pollution Prevention Plan (SWPPP) (*Can be a hard copy or PDF with hard copy of site plan*)
- Review time: First Submittals 30 days; Resubmittals 15 days.** [\(E-mail questions to SWQ@bexar.org\)](mailto:SWQ@bexar.org)
- B. **Post Construction Permit** – (Permit Cost \$50 or \$250; Please reference Mitigation Worksheet) – Submit this permit application concurrent with the Storm Water Quality Permit. A Bexar County Post Construction Permit is required when one (1) or more acres of soil is being disturbed on the site or as part of Common Plan of Development. The review verifies when mitigation is required based on the amount of impervious cover greater than the target impervious cover shown for the proposed improvement. Submittal requirements are (see: <https://www.bexar.org/2147/Post-Construction-Permits>):
1. Application (signed)
 2. Mitigation Worksheet
 3. Fee (check mitigation worksheet)
 4. Supporting documentation for mitigation if mitigation is required
- Review time: Concurrent with Storm Water Quality Permit.** [\(E-mail questions to SWQ@bexar.org\)](mailto:SWQ@bexar.org)
- C. **Right-of-Way permits (ROW)** – (Permit cost: Varies) A Bexar County Right-of-Way permit is required for all work within a county maintained right of way. You must have an issued ROW permit before starting work in the ROW. (see: <https://www.bexar.org/1493/Right-of-Way-Permits>).
- Review time: 15 -30 days.** [\(E-mail questions to ROW.permit@bexar.org\)](mailto:ROW.permit@bexar.org)
- D. **On Site Sewage Facility (OSSF) Permit** – (Permit cost: contact to verify) An OSSF permit is required for sites that are not serviced by public sanitary sewer. If no water service is available, provide information about restroom provisions for employees. An OSSF permit must be submitted (if new construction) or renewed (if existing construction).
- Review time: 30 days.** [\(Questions: Mike Lara @ mikel@bexar.org; 210-335-0295\)](mailto:mikel@bexar.org)
- E. **Floodplain Permit** – (Permit cost: \$50.00) A Bexar County Floodplain Development Permit is required for any property that is encumbered or within 100 feet of a FEMA designated 1% (100yr) floodplain. Floodplain permits are issued after the applicable Permits A-D listed above have been issued. You must have an issued permit before starting work. (see: <https://www.bexar.org/1492/Flood-Development-Permits>).
- Review time: First submittals: 30 days; Resubmittals: 15 days.** [\(E-mail questions to floodplain@bexar.org\)](mailto:floodplain@bexar.org)
- F. **Subdivision plats** – if a subdivision plat is required but not recorded, County Development Services Staff must complete at LEAST one review of the plat materials to verify that no conflicts exist between the proposed buildings and easements shown on the plat. If a conflict exists, a revised site plan or plat will be required. [https://www.bexar.org/1443/Subdivision-Plats#:~:text=Subdivision%20plats%20are%20required%20any,authority%20\(Commissioners%20Court%20or%20Executive](https://www.bexar.org/1443/Subdivision-Plats#:~:text=Subdivision%20plats%20are%20required%20any,authority%20(Commissioners%20Court%20or%20Executive)
- Typical review time: First submittals: 30 days; Resubmittals: 15 days.** [\(E-mail questions to plat@bexar.org\)](mailto:plat@bexar.org)
- G. **Military Limited Lighting Regions (MLLR)** - Bexar County Development Services will review exterior lighting design plans for the proposed development outside of the COSA Military Protection Area. You may find the limits of the MLLR along with the requirements in the most recent court order. Identify if Option A or Option B will be reviewed. For a review, submit the following to BPA.permit@bexar.org: 1) Site Plan dimensioning location and orientation of Lumina location(s) in relation to nearest property line; 2) Table listing Lumina type, mounting height, color temperature, lumens per light and total lumens proposed for site; 3) Manufacturer Specification Sheets for each lighting fixture; 4) Photometric plan clearly identifying property boundary and Maximum Vertical Illuminance value at the property line; 5) Additional data explaining any alterations to the proposed lighting fixtures; 6) Total value of total lumens on the inside surfaces of the virtual enclosure and how the value was derived (Option B); 7) Engineer Certification Lighting Plan Complies with Bexar County Military Protection Lighting Court Order (Option B). An accepted lighting plan is required before Public Works signs the Permit Verification form.
- Review time: 7-14 days.** [\(E-mail questions to bpa.permit@bexar.org\)](mailto:bpa.permit@bexar.org)
- H. **Fire Marshal Building Permit** – (Permit cost: contact to verify) A building permit is required in the unincorporated areas of the county any time an individual, company, corporation, or group of individuals acting as an organization constructs, builds, or erects a new building to be used for commercial, public accessible, or multi-family residential purposes; OR a pre-built building is located on a piece of property; OR anytime an existing building undergoes a "substantial improvement". This does not apply to single family residential homes (including duplexes and triplexes) (see: <https://www.bexar.org/643/Permits-Applications>).
- [\(Questions: Willaim McLain @ william.mclain@bexar.org or David Dugan @ david.dugan@bexar.org; 210-335-0300\)](mailto:william.mclain@bexar.org)
- I. **Food Service Establishment (FSE) Permits:**
1. Application and Fee
 2. Website: <https://www.bexar.org/3217/Food-Service-Establishment-Health-Inspe>
- [\(Questions: Kailey Mendez @ Healthpermits@bexar.org; 210-335-3045\)](mailto:Healthpermits@bexar.org)

MASTER DEVELOPMENT PLANS

Precinct	ID	Project Name	Street	Current Total Acres	Current Residential Lots	Current NSF Lots	Current NSF Acres	Current City Determination date	Current City Determination Status	Developer	Phone Number	Primary Email	% Recorded
1	18-00027	Blue Skies	WT MONTGOMERY	155	710	1	2	5/9/2019	Accepted	CW-BSLB LLC	480-820-0977	jcork@coronadowest.com	105%
1	19-00034	Blue Wing Trails	BLUE WING RD	178	876	0	0	11/20/2020	Accepted	Blue Wing Trails Ltd			41%
1	22-00021	Camino Real	WATSON RD	124	490	6	22	5/5/2022	Under Review				0%
1	21-00011	Ciudad De Las Palomas	TALLEY RD	197	397	5	92	10/26/2021	Accepted	Bella Vista CMI Ltd	(210) 402-0642	tpruski@bellavistahomes.com	26%
1	21-00064	Cline Tract	SH 16 S	80	420	0	0	9/13/2022	Accepted	Terra Hills Development LLC	(956) 237-0191	jttriplejandl@aol.com	0%
1	21-00029	Echtle Tract	MASTERSON RD	121	480	0	0	11/18/2021	Accepted	Jen Texas 27 LLC	(210) 849-1447		78%
1	14-00002	Escondido Estates Subdivision	JETT RD S	95	119	0	0	8/26/2015	Accepted	Maria Investments	(210) 422-9371	mariainvestments1@gmail.com	53%
1	14-00052	Falcon Landing	FM 471 (CULEBRA RD)	140	537	3	8	12/21/2015	Accepted	KB Home Lone Star LP	(210) 301-2885	jtownsely@kbhome.com	105%
1	22-00009	Gass Tract 153 Acres	GASS RD	153	650	0	0	3/1/2022	Under Review	Meritage Homes of Texas LP	(210) 293-4929	brian.otto@meritagehomes.com	0%
1	20-00049	Grosenbacher Ranch	GROSENBACHER RD	153	668	0	0	3/1/2022	Accepted	Milestone Potranco Development Ltd	(210) 771-9072	ciswann@cygnetltd.com	65%
1	22-00048	Haller Tract	IH 37 S	129	0	2	129	12/16/2022	Under Review	Bakke Development Corporation	(210) 821-6322	pbakke@bakkedevcorp.com	0%
1	22-00031	Hidden Burrow	PVT RD	50	259	0	0	6/30/2022	Under Review	Yellowstone Real Estate Inc		keith@yellowstonedevelopers.com	0%
1	22-00007	Hidden Oasis	RAY LIECK DR	54	213	0	0	2/23/2022	Under Review	San Antonio LD LLC (Arkansas)	(479) 455-9090		41%
1	22-00027	Hwy 90 & Montgomery Tract	WT MONTGOMERY	96	251	5	50	10/19/2023	Accepted	SSN Investments	(281) 420-2869	ssninvestments@gmail.com	0%
1	21-00027	Jungman Tract	JUNGMAN RD	342	1,468	2	9	2/22/2022	Accepted	Starlight Homes of Texas LLC	(210) 967-3900	blake.harrington@ashtonwoods.com	33%
1	21-00022	Lone Oak	LIEDECKE RD	219	752	2	20	3/30/2022	Accepted	Bright Lakes Real Estate LLC			0%
1	20-00011	Luckey Ranch	US HWY 90 W	611	2,201	4	113	8/20/2020	Accepted	LGI Homes - Luckey Ranch LLC	(281) 362-8998	cbirt@lgihomes.com	95%
1	18-900010	Lynwood Village Enclave	PUE RD	39	108	2	1	10/31/2019	Accepted	J M Assets LP	210-718-4172	nick@rosewoodres.com	100%
1	22-00002	Mechler Tract	OLD US HWY 90 W	54	360	0	0	6/2/2022	Accepted	Entrada Development	(210) 849-1447		0%
1	14-00051.01	Overlook at Medio Creek	MARBACH RD	162	372	1	1	1/14/2020	Accepted	KB Home Lone Star LP	(210) 301-2885	jtownsely@kbhome.com	101%
1	21-00051	Palo Alto Pointe	SH 16 S	38	185	0	0	6/21/2022	Accepted	San Antonio LD LLC	(512) 639-0527	justin.cox@raushcoleman.com	0%
1	21-00036	Potranco Creek	GROSENBACHER RD	30	99	0	0	10/12/2022	Accepted	SAMA Developers	(210) 966-0505		0%
1	17-00011	Potranco Market	FM 1957 (POTRANCO RD)	200	182	7	104	12/15/2017	Accepted	SA Dove Creek Highlands Ltd	(210) 828-7654	pkb@blackburnproperties.com	104%
1	21-00056	QT 4068 Addition	FM 1957 (POTRANCO RD)	39	0	12	29	9/30/2021	Under Review	QuikTrip Corporation (San Antonio)	(210) 332-4028	mmiller@quiktrip.com	32%
1	19-00055	Redbird Ranch Subdivision	FM 1957 (POTRANCO RD)	2,018	5,250	17	480	4/1/2021	Accepted	Mosaic Land Development LLC	(210) 764-9575	blake@mosaiclanddevelopment.com	45%
1	22-00045	San Medina Subdivision	LAMM RD	522	0	2	373	11/15/2022	Under Review				0%
1	22-00001	Savannah Woods	APPLEWHITE RD	487	456	0	0	6/22/2022	Under Review	486 Holdings LLC	(210) 271-9875 x1011	john@actualtd.com	0%
1	14-00015	Seale 351.25-Acre Tract	W LOOP 1604 S	351	1,375	5	40	4/28/2020	Accepted	Milestone Potranco Development Ltd	(210) 771-9072	ciswann@cygnetltd.com	99%
1	22-00014	Stolte Ranch	TALLEY RD	262	731	1	2	3/30/2022	Under Review	Forestar (USA) Real Estate Group Inc (Austin)	(512) 433-5231	JohnMaberry@forestar.com	34%
1	21-00070	Stonehill	US HWY 90 W	569	1,940	4	73	6/6/2022	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	0%
1	22-00005	Sunshine Trails	PEARSALL RD	100	770	2	2	3/3/2022	Under Review	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	0%
1	21-00012	The Orchard	US HWY 90 W	565	0	4	565	5/25/2021	Under Review	Cumberland 90 Ltd	(214) 855-5400	cumberlandcc@gmail.com	0%
1	20-00041	The Preserve At Medina River	WATSON RD	534	1,383	2	103	12/15/2020	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	61%
1	21-00071	Tierra Linda Subdivision	VERANO PKWY	101	540	0	0	8/15/2022	Accepted	Yellowstone Real Estate Inc		keith@yellowstonedevelopers.com	0%
1	20-00028	Tres Laurels	WT MONTGOMERY	312	1,219	1	3	4/8/2021	Accepted	Mosaic Land Development LLC	(210) 764-9575	blake@mosaiclanddevelopment.com	0%
1	21-00058	Verdin	SH 16 S	132	435	0	0	9/14/2022	Accepted	Kingfish Development LLC			0%

MASTER DEVELOPMENT PLANS

Precinct	ID	Project Name	Street	Current Total Acres	Current Residential Lots	Current NSF Lots	Current NSF Acres	Current City Determination date	Current City Determination Status	Developer	Phone Number	Primary Email	% Recorded
1	23-00029	Watson Rd 80 Acre Tract	WATSON RD	81	498	0	0	10/20/2023	Under Review	Empower Communities LLC		julian@empower-communities.com	0%
1	003-06-A	West Pointe Gardens	US HWY 90 W	237	633	2	28	9/12/2019	Accepted	Lloyd Moody	(281) 955-1144	rsteel@champion-management.com	67%
1	21-00045	West Ridge	SH 211	659	2,554	0	0	5/20/2022	Accepted	Medina Revitalization Initiative LLC		jaime@gordonhartman.com	0%
1	16-00005.01	Weston Oaks	FM 1957 (POTRANCO RD)	346	1,112	6	53	8/29/2019	Accepted	Babcock Road 165 Ltd	210-690-7600	benp@forl.com	103%
1	19-00008	Westpointe North	FM 471 (CULEBRA RD)	265	889	4	64	11/7/2019	Accepted	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	106%
1	21-00031	Yturri Tract	FM 1937	81	341	0	0	1/7/2022	Accepted				0%
1	20-00053	257-Acre Texas Research Park; Vintage Oaks; Hunters Ranch	SH 211 TEXAS RESEARCH PKWY	1,237	2,343	31	558	5/28/2021	Accepted	Vintage Oaks LLC	(210) 695-5490	harryhausman@icloud.com	50%
1	20-00050	Alamo Ranch; Westwinds	W LOOP 1604 S	3,163	8,621	31	733	2/26/2021	Accepted	Abacus Alamo Ranch Apartment Land Purchase			98%
1	046-06-B	American Lotus; Amhurst	W LOOP 1604 S	285	634	5	47	11/19/2012	Accepted	Milestone Potranco Development Ltd	(210) 771-9072	ciswann@cygnetltd.com	104%
1	20-00044	Applewood Ranch	US HWY 90 W	271	740	8	91	1/14/2021	Accepted	Forestar (USA) Real Estate Group Inc (Austin)	(512) 433-5231	JohnMaberry@forestar.com	36%
1	21-00060	Copper Ridge / Ruby Crossing	S LOOP 1604 E	2,330	3,283	7	176	8/5/2023	Accepted	Bella Vista Homes LLC	(210) 402-0642	tpruski@bellavistahomes.com	50%
1	16-00032	Dickerson	W GROSENBACHER RD	35	160	0	0	11/17/2017	Accepted	Showcase Development Ltd	210-789-3500	gliguori@showcasedev.com	0%
1	23-00030	Dumic Subdivision	FM 1957 (POTRANCO RD)	772	2,774	5	37	12/18/2023	Under Review	CTMGT Rancho Del Lago LLC	(469) 892-7200	jgilpatrick@umth.com	73%
1	22-00046	Felder Tract; Ladera; Highpoint; Millbrook	SH 211 TEXAS RESEARCH PKWY	1,125	3,817	6	132	4/17/2023	Accepted	Ladera I LLC	(907) 274-8638	cnugent@ciri.com	44%
1	20-00025	Hooten Tract	TALLEY RD	217	1,000	4	22	12/17/2020	Accepted	Starlight Homes of Texas LLC	(210) 967-3900	blake.harrington@ashtonwoods.com	90%
1	21-00044	Legend Oaks; Talleyho Tract	TALLEY RD	700	1,259	1	2	2/2/2022	Accepted	Entrada Development	(210) 849-1447		57%
1	23-00017	Lonesome Dove; Lonesome Dove Hills; Lonesome Dove Estates	S LOOP 1604 E	586	1,434	16	253	5/5/2022	Under Review	Bright Lakes Real Estate LLC			101%
1	23-00021	Lucero at Luckey Ranch	WT MONTGOMERY	261	793	3	13	12/6/2023	Under Review	LGI Homes	(281) 362-8998	cbirt@lgihomes.com	24%
1	19-00018	Medina Landing	W LOOP 1604 S	27	204	0	0	2/11/2020	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	100%
1	23-00028	Morgan Heights	TALLEY RD	205	900	1	2	12/19/2023	Under Review	Talley Extension Revitalization Initiative LLC	210-493-2811	jaime@gordonhartman.com	29%
1	18-900009	Morgan Meadows Subdivision	TALLEY RD	223	1,115	1	2	10/26/2020	Accepted	Talley Extension Revitalization Initiative LLC	210-493-2811	jaime@gordonhartman.com	50%
1	799	Oaks of Westcreek and Royal Oaks of Westcreek; The Woods of Westcreek and Willow Brook; The Hills of Westcreek; Villages of Westcreek	MILITARY DR W EB	1,305	3,554	15	251	10/28/2021	Accepted	Gordon V Hartman Enterprises Inc	(210) 490-1798		79%
1	19-00037	Old Talley	OLD TALLEY RD	57	260	1	1	3/18/2020	Accepted	Talley Road Ltd	(210) 828-6131	barbara@bitterblue.com	87%
1	21-00062	Olson Tract	CAMP LIGHT WAY	199	725	0	0	1/27/2022	Accepted	Milestone Groesenbacher Development Ltd	(210) 541-1413	ciswann@cygnetltd.com	92%
1	18-900004	Palo Alto Villas	SH 16 S	62	0	44	25	4/23/2019	Accepted	TVPA Partners LLC	(214) 872-9240		17%
1	23-00010	Preserve at Culebra; Falcon Landing East	FM 471 (CULEBRA RD)	272	1,400	2	24	5/25/2023	Under Review	KB Home Lone Star LP	(210) 301-2885	jtownsely@kbhome.com	24%
1	19-00051	Riverstone	TALLEY RD	1,503	4,760	21	390	6/1/2020	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	44%
1	20-00056	Silos Subdivision	MASTERSON RD	336	1,500	1	18	3/17/2021	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	101%
1	20-00024	Stoney Creek	GROSENBACHER RD	85	373	1	1	6/8/2021	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	105%

MASTER DEVELOPMENT PLANS

Precinct	ID	Project Name	Street	Current Total Acres	Current Residential Lots	Current NSF Lots	Current NSF Acres	Current City Determination date	Current City Determination Status	Developer	Phone Number	Primary Email	% Recorded
1	21-00008	Terra Buona	US HWY 90 W	200	882	3	21	9/21/2021	Accepted	Mosaic Land Development LLC	(210) 764-9575	blake@mosaiclanddevelopment.com	58%
1	23-00027	Trails of Briggs Ranch and Royal Oaks at Briggs Ranch PUD; Haciendas de Briggs Ranch; Briggs Ranch Towne Center; Briggs Ranch East, Briggs Ranch East Phase 5	US HWY 90 W	2,444	4,305	19	495	9/21/2023	Under Review	Chesmar Homes	(210) 957-3395	ken.trainer@chesmar.com	19%
1	15-00036.02	Westlakes	W LOOP 1604 S	850	1,439	6	223	9/6/2019	Accepted	Hugo Gutierrez	(956) 722-5196	hugog@homeexpress.bravo.net	67%
1	21-00066	Westpointe East; Westpointe East Unit 33; Westpointe East Q3; Westpointe East Unit 37, Wiseman & Westcreek Oaks	WISEMAN BLVD	1,650	2,365	37	967	4/6/2022	Accepted	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	54%
1	18-00006	Whisper Falls	MASTERSON RD	314	1,285	1	6	7/2/2018	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	101%
1	20-00052	Wissman Tract; Bella Vista	SH 211 TEXAS RESEARCH PKWY	2,423	3,475	11	538	8/12/2021	Accepted	Cumberland Stevens Residential Ltd	(214) 855-5400	cumberlandcc@gmail.com	22%
1	22-00042	Wolf Hollow; Park Place Phase II; Wolf Creek; Trophy Ridge	MARBACH RD	1,069	3,500	15	240	7/12/2023	Accepted	Concord West Corporation			90%
1/4	21-00043	Medina River Tract	US HWY 281 S	147	470	0	0	10/27/2022	Accepted	Heritage Commercial LLC	(210) 780-8700	hresendez1@gmail.com	0%
2	14-00047	Davis Ranch Subdivision	SWAYBACK RANCH SB	243	1,059	0	0	7/20/2021	Accepted	Pulte Group	(210) 581-8845	sean.miller@pultegroup.com	106%
2	004-10	HEB-Culebra/211	FM 471 (CULEBRA RD)	30	0	6	30	8/24/2010	Accepted	HEB Grocery Company LP	(210) 938-8238	roher.mary@heb.com	0%
2	15-00007	Kallison Ranch 215 Acre Tract	KALLISON BEND	215	813	0	0	5/17/2021	Accepted	PHSA NW 315 LLC		taylor.gunn@perryhomes.com	39%
2	21-00053	McCrary Tract	GALM RD	851	1,992	0	0	11/16/2021	Accepted	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	34%
2	CP202201	Sagebrooke	FM 1560 N	142	901	2	26	12/10/2021	Accepted -- County Only MDP	Meritage Homes of Texas LP	(210) 293-4929	brian.otto@meritagehomes.com	76%
2	18-900003	Canyon Estates; Remuda Ranch Commercial	GALM RD	424	659	5	26	5/17/2019	Accepted	Remuda 530 LP	(210) 402-0866	ironstonedev@satx.rr.com	68%
2	20-00005	Prescott Oaks	GALM RD	258	1,182	2	4	1/26/2021	Accepted	Swift Water Development LLC (San Antonio)		ken.trainer@chesmar.com	136%
2	007-08-A	Silver Canyon	MILL PARK	128	576	0	0	6/15/2015	Accepted -- County Only MDP	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	103%
2	848-C	Silver Oaks	GALM RD	210	648	2	19	11/9/2021	Accepted				95%
2	20-00057	Waterford Park; Savannah; Valley Ranch	FM 471 (CULEBRA RD)	1,585	5,709	19	296	4/15/2021	Accepted	PHSA NW 315 LLC		taylor.gunn@perryhomes.com	105%
2	13-00011	Werner Tract; Settlers Ridge; Talise De Culebra	GALM RD	337	804	2	9	11/30/2020	Accepted	Sivage Community Development Inc		msivage@sivage.com	59%
3	041-06-A	Arthur Tract	IH 10 W	163	364	6	54	12/29/2020	Accepted	Napa Oaks SA Ltd	(210) 448-0800	jhjaphet@yahoo.com	102%
3	22-00026	Boerne Stage Road Tract	BOERNE STAGE RD	168	132	0	0	7/27/2022	Under Review	Chesmar Homes	(210) 957-3395	ken.trainer@chesmar.com	0%
3	16-00010	Fischer Tract	E EVANS RD	141	500	1	2	4/10/2019	Accepted	KB Home Lone Star LP	(210) 301-2885	jtownsely@kbhome.com	110%
3	22-00008	Guajolote Ranch	SCENIC LOOP RD	1,160	3,000	0	0	3/9/2023	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	0%
3	19-00049	Heritage Crossing	BOERNE STAGE RD	75	0	5	75	8/2/2021	Accepted	MBS Development Services LLC	(210) 514-3563	msb57071@gmail.com	0%
3	18-00017	Langdon Tract	E EVANS RD	186	800	0	0	9/24/2018	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	80%
3	822-A	Lost Creek I	OLD FREDERICKSBURG RD	115	406	3	16	6/7/2006	Accepted	Centex Real Estate Corporation	210-581-8845	sean.miller@pultegroup.com	98%
3	16-00017	Pecan Springs Ranch	TOUTANT-BEAUREGARD RD	134	20	0	0	1/11/2021	Accepted	Crighton Development	(713) 249-5815	john.f.jeffers@gmail.com	84%

MASTER DEVELOPMENT PLANS

Precinct	ID	Project Name	Street	Current Total Acres	Current Residential Lots	Current NSF Lots	Current NSF Acres	Current City Determination date	Current City Determination Status	Developer	Phone Number	Primary Email	% Recorded
3	028-06-A	Sundance Ranch Subdivision	TOUTANT-BEAUREGARD RD	250	282	1	4	7/17/2021	Accepted	Post River Sundance Ranch Ltd	(210) 667-0000		51%
3	County01	Timberwood Park	BLANCO RD	2,172	3,263	2	40	10/22/2020	Accepted -- County Only MDP	Timberwood Development Company	(210) 497-0695		104%
3	13-00017	Tuscan Oaks	BULVERDE RD	121	176	3	13	1/23/2014	Accepted	Tuscan Oaks Inc	(210) 448-0800	jhjaphet@yahoo.com	46%
3	797-D	Anderson Tract at Anaqua Springs Ranch	TOUTANT-BEAUREGARD RD	922	369	0	0	9/22/2014	Accepted	Anaqua Springs Ranch Inc	(210) 493-1444	tomdreiss@aol.com	58%
3	18-00011	Blackbuck Ranch Phase 2	KENDALL CANYON	647	623	0	0	3/19/2019	Accepted	Southerland Communities LLC	(830) 228-5263		105%
3	20-00001	Brookstone; Brook Stone Creek	EVANS RD	321	902	1	7	12/18/2020	Accepted	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	57%
3	20-00015	Cantera Hills at Scenic Loop	SCENIC LOOP RD	260	154	0	0	10/9/2020	Accepted	Cantera Hills Unit 1 Ltd	(210) 526-8682	tmarsh@bitterblue.com	75%
3	21-00046	Canyon Valley 909 Acre Tract; Summerlin; Laredo Springs; San Miguel; Fuentes Property	CANYON GOLF RD	1,733	3,046	37	535	10/27/2021	Accepted				87%
3	20-00003	Cibolo Canyon Resort Community; Cibolo Canyons	BULVERDE RD	2,859	2,065	15	313	7/10/2020	Accepted	TF Cibolo Canyons LP	(941) 388-0707		43%
3	17-00013.01	Cielo Ranch	FM 3351 (RALPH FAIR RD)	133	545	1	2	2/14/2019	Accepted	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	110%
3	22-00010	Coronado Subdivision	US HWY 281 N	123	250	5	56	7/7/2022	Under Review	Robert D Tipps	(210) 924-4242	tips0999@aol.com	63%
3	20-00033	Dym Tract; Silverado Hills II; Highland Estates	E BORGFELD DR	360	843	8	19	2/23/2021	Accepted	Bitterblue Inc	(210) 526-8682	tmarsh@bitterblue.com	41%
3	19-00054	Estancia Ranch	BLANCO RD	174	420	0	0	1/19/2021	Accepted	Meritage Homes of Texas LP	(210) 293-4929	brian.otto@meritagehomes.com	38%
3	19-00027	Indian Springs; Indian Springs Estates North PUD	BULVERDE RD	1,480	4,589	5	51	12/9/2019	Accepted	Meritage Homes of Texas LP	(210) 293-4929	brian.otto@meritagehomes.com	74%
3	21-00026	Kinder Northeast PUD; Kinder Ranch AGI; Kinder West; Lux Tract	BULVERDE RD	1,238	2,536	8	231	6/22/2023	Accepted	SA Kinder Partnership No 1 Ltd	(210) 828-6131	barbara@bitterblue.com	62%
3	19-00022	Lemon Creek Ranch	IH 10 W	116	0	7	88	7/27/2020	Under Review	Valcor Commercial Real Estate			97%
3	19-00030	Mallory Phase 1; Scenic Crest; Mallory Ranch	TOUTANT-BEAUREGARD RD	100	398	0	0	12/7/2020	Accepted	USMAR LLC		adavidmedina@yahoo.com	75%
3	624-A	Marshall Ranch Commercial	US HWY 281 N	78	0	5	78	5/23/2000	Accepted				99%
3	14-00023.01	Overlook Town Center	US HWY 281 N	695	166	6	94	6/27/2018	Accepted	281 Overlook Partners LP	(972) 620-8850	bill@jones-reality.com	86%
3	23-00013	Pecan Springs	TOUTANT-BEAUREGARD RD	448	199	2	56	5/30/2023	Under Review	Pecan Springs Development Company LLC	(210) 493-1444	tdreiss@dreicomgmt.com	45%
3	18-00009	River Rock Ranch	BOERNE STAGE RD	226	585	1	1	1/8/2019	Accepted	Green Land Ventures Ltd	(830) 331-9400		99%
3	19-00044	Sterling Ridge	W BORGFELD DR	108	421	1	1	8/7/2020	Accepted	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	71%
3	004-06-C	Triana; Bridgepoint	SH 16 (BANDERA RD)	198	432	2	15	12/20/2021	Accepted	Grupo Triana Ltd	(210) 344-9200		105%
3	15-00034	Willis Ranch	BULVERDE RD	129	318	4	17	3/25/2019	Accepted	Bitterblue Inc	(210) 526-8682	tmarsh@bitterblue.com	95%
3	15-00050	Woodland Hills IH 10 North; Stonewall Estates; Babcock Road 165; Bloomfield Heights; Terra Mont	IH 10 W	1,321	936	4	43	8/19/2021	Accepted	Karta Real Estate LP			52%
4	16-00037	Ackerman Gardens	BINZ-ENGLEMAN RD	82	267	0	0	6/1/2017	Accepted	Basiliah Land Investments LLC	(210) 495-8777		103%
4	20-00040	Agave Subdivision	S WW WHITE RD	182	834	2	2	3/9/2021	Accepted	Lucra Terra LLC	(830) 837-2349	lbaker99511@gmail.com	22%
4	CP201601	Asher Place	ABBOTT RD	52	247	1	3	2/14/2017	Accepted -- County Only MDP	Triple H Development Inc	(210) 695-5490	Hausman4550@gmail.com	104%

MASTER DEVELOPMENT PLANS

Precinct	ID	Project Name	Street	Current Total Acres	Current Residential Lots	Current NSF Lots	Current NSF Acres	Current City Determination date	Current City Determination Status	Developer	Phone Number	Primary Email	% Recorded
4	23-00023	Blue Wing	BLUE WING RD	44	220	0	0	8/16/2023	Under Review	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	0%
4	22-00025	Calaveras Lake	BURSHARD RD	448	2,046	0	0	3/17/2023	Accepted	Regal Land Development	(512) 466-6695	clint@regallanddevelopment.com	0%
4	19-00057	Clearwater Creek	FM 2538	227	985	0	0	11/4/2020	Accepted	SA Kosta Browne LTD	(210) 764-9575	blake@mosaiclanddevelopment.com	0%
4	23-00009	D Rakowitz	GREEN RD	107	608	0	0	8/18/2023	Accepted	New Terra Investments LLC	(956) 237-0191	jtriplejandl@aol.com	0%
4	21-00041	Eastridge	HILDEBRANDT RD	100	545	0	0	12/3/2021	Accepted	Kingfish Development LLC			0%
4	22-00015	Elizondo Tract	IH 10 E	158	613	3	7	1/31/2023	Accepted	Forestar (USA) Real Estate Group Inc (Austin)	(512) 433-5231	JohnMaberry@forestar.com	43%
4	21-00054	Fischer Gardens	GRAYTOWN RD N	80	450	0	0	9/15/2022	Accepted	SA Given to Fly LLC		allen@mosaiclanddevelopment.com	0%
4	23-00018	Flora Meadows	LIBERTY RD	50	285	0	0	6/28/2023	Under Review	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	77%
4	20-00009	Gates Subdivision	US HWY 87 E	259	1,400	1	3	11/5/2020	Accepted	MEH Holding Company LTD	210-490-1798	jaime@gordonhartman.com	0%
4	21-00052	Higdon Crossing	HIGDON RD	98	542	5	6	7/20/2022	Accepted	San Antonio LD LLC	(512) 639-0527	justin.cox@raushcoleman.com	20%
4	22-00043	Hunter's Ridge Subdivision	FREUDENBURG RD	222	1,085	1	2	8/1/2023	Accepted	Forestar Group Inc	(512) 433-5200	emilianoguerrero@forestar.com	41%
4	CP201903	Hunters Place Subdivision	ABBOTT RD	17	102	0	0	7/12/2019	Accepted -- County Only MDP	Harry Hausman	(210) 372-0092	Hausman4550@gmail.com	117%
4	21-00055	Luensmann Property	E LOOP 1604 S	418	1,450	2	5	3/25/2022	Accepted	Starlight Homes of Texas LLC	(210) 967-3900	blake.harrington@ashtonwoods.com	55%
4	22-00006	Miro Meadows	NEW SULPHUR SPRINGS RD	40	185	1	1	2/2/2022	Under Review	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	0%
4	22-00032	Prairie Green	GRAYTOWN RD N	66	300	0	0	1/2/2023	Accepted	Brightland Homes Ltd	(512) 658-3975		0%
4	21-00040	Punta Verde	GREEN RD	94	422	4	23	3/25/2022	Accepted	Green Road 1604 Partners LLC		vandonie@msgmanagement.com	6%
4	19-00053	Rabel Subdivision	RABEL RD	200	987	0	0	8/6/2020	Accepted	Lucca Rabel LLC	(210) 363-4672		0%
4	21-00001	Randolph Crossing	LOOP 1604	105	492	0	0	7/1/2021	Accepted	San Antonio LD LLC	(512) 639-0527	justin.cox@raushcoleman.com	42%
4	19-00035	Real Subdivision	FM 1518 N	55	285	1	2	7/30/2020	Accepted	FM 1518 and 10 Land Development Partners LTD	(512) 695-3532	rw4@cgminterests.com	81%
4	23-00022	Real Tract	SCHUWIRTH RD	235	1,150	0	0	8/1/2023	Under Review	Pulte Homes of Texas	(210) 581-8845	sean.miller@pultegroup.com	0%
4	19-00002	Riverbend Ranch	DONOP RD	163	168	0	0	11/14/2019	Accepted	Riverbend Ronesa LP	(210) 802-0110		0%
4	21-00057	Roosevelt Landing	FM 1937	197	852	5	24	7/25/2022	Accepted	San Antonio LD LLC	(512) 639-0527	justin.cox@raushcoleman.com	20%
4	21-00063	S Flores Manufactured Housing Community	FM 1937	95	0	2	95	5/20/2022	Accepted	Empower Communities LLC		julian@empower-communities.com	0%
4	21-00013	Sapphire Grove	NEW SULPHUR SPRINGS RD	174	949	0	0	3/2/2022	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	13%
4	22-00047	Schuwirth	E LOOP 1604 S	45	260	0	0	8/24/2023	Accepted	PSG-BV Holdings Company LLC			0%
4	CP201902	Scott Hollow Subdivision	ABBOTT RD	20	106	0	0	7/12/2019	Accepted -- County Only MDP	Harry Hausman	(210) 372-0092	Hausman4550@gmail.com	99%
4	23-00016	Sienna Lakes	FM 1346 (SAINT HEDWIG RD)	106	160	0	0	7/3/2023	Under Review	Chesmar Homes LLC	(210) 957-3395		0%
4	23-00024	Stone Garden	US HWY 181 S	459	2,276	6	50	9/8/2023	Under Review	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	16%
4	22-00040	Summer Vista	HIGDON RD	78	504	0	0	9/26/2022	Under Review	NADJS Property Investment LLC	(210) 365-5659	alamo_travel@yahoo.com	0%
4	23-00004	Villages at the Gardens	S WW WHITE RD	132	677	0	0	3/17/2023	Under Review	SA Kosta Browne LTD	(210) 764-9575	blake@mosaiclanddevelopment.com	0%
4	20-00023	Vista Real	SCHUWIRTH RD	229	699	1	3	8/24/2021	Accepted	WBW Single Development Group LLC			18%
4	569	Walzem Partners Business Park	FM 78 (SEGUIN RD)	10	0	4	10	4/21/2020	Accepted				89%

MASTER DEVELOPMENT PLANS

Precinct	ID	Project Name	Street	Current Total Acres	Current Residential Lots	Current NSF Lots	Current NSF Acres	Current City Determination date	Current City Determination Status	Developer	Phone Number	Primary Email	% Recorded
4	21-00005	White Wing Creek	SCHUWIRTH RD	191	955	1	5	8/19/2021	Accepted	New Terra Investments LLC	(956) 237-0191	jtriplejandl@aol.com	0%
4	633	Woodlake Commercial	FM 78 (SEGUIN RD)	18	0	2	18	6/11/1999	Accepted				97%
4	23-00011	Wright Carpenter Tract	FM 1937	137	766	0	0	6/6/2023	Under Review	TTLIC San Antonio Wright Ranch LLC	jlohr@thetruefifecc		0%
4	18-00015	Annabelle Ranch	BECK RD	106	153	0	0	11/14/2019	Accepted	Bitterblue Inc	(210) 526-8682	tmarsh@bitterblue.com	110%
4	18-900011	Avila	WOODLAKE PKWY NB	77	162	2	47	7/9/2019	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	76%
4	099-A	Candlewood	N FOSTER RD	194	874	1	5	6/10/2021	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	97%
4	23-00026	Chariot; Espada Tract	FM 1937	1,839	4,487	6	484	9/12/2023	Under Review	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	11%
4	CP201901-A	Cobalt Canyon	ABBOTT RD	59	223	0	0	5/24/2019	Accepted -- County Only MDP	Continental Homes of Texas LP	(210) 496-2668	lostrander@drhorton.com	106%
4	16-00030	Crestway 42.65 Acre Tract; Crestway Heights	ELM TRAIL DR	43	181	0	0	3/28/2017	Accepted	San Antonio 2016 LLC	(479) 455-9090	david.frye@rauschcoleman.com	85%
4	23-00014	Estates at Lily Trails; Sosie Meadows	MILLER RD	93	515	0	0	11/9/2023	Under Review	SA Given to Fly LLC		allen@mosaiclanddevelopment.com	0%
4	21-00074	Grace Meadows	S WW WHITE RD	103	490	0	0	6/9/2022	Accepted	SA Hundred Acre LLC	(940) 393-9484	cassidy@mosaiclanddevelopment.com	0%
4	CP201602	Hallies Ranch	ABBOTT RD	62	389	1	1	2/14/2017	Accepted -- County Only MDP	Triple H Development Inc	(210) 695-5490	Hausman4550@gmail.com	105%
4	21-00047	Horizon Pointe; Windfield	N FOSTER RD	595	1,993	72	153	9/8/2021	Under Review	Horizon Pointe Apartments LP	(210) 355-3233	joey@integratedrealtygroup.com	97%
4	CP201603-B	Hunter's Way; Heather's Place	ABBOTT RD	101	294	0	0	3/6/2017	Accepted -- County Only MDP	Triple H Development Inc	(210) 695-5490	Hausman4550@gmail.com	103%
4	20-00004	Katzer Ranch	GRAYTOWN RD	79	366	1	3	7/28/2020	Accepted	Hillstar Investments II LLC	956-237-0191		40%
4	20-00032	Red Hawk Landing	HILDEBRANDT RD	275	1,294	0	0	12/18/2020	Accepted	Lucra Terra LLC	(830) 837-2349	lbaker99511@gmail.com	
4	23-00025	Rose Valley	GRAYTOWN RD N	154	811	0	0	11/29/2023	Under Review	BEK RE Fund LLC	(210) 913-3044	bkneupper@dkrealtyadvisors.com	52%
4	21-00050	Sage Meadows West	FM 1518 N	80	378	0	0	2/28/2022	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	100%
4	20-00034	Southton Meadows	SOUTHTON RD	210	1,088	2	2	10/13/2020	Accepted	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	105%
4	CMDP 2021-01	Spring Grove	ABBOTT RD	70	288	0	0	6/25/2021	Accepted -- County Only MDP	Lennar Homes of Texas Land & Construction Ltd	(210) 403-6200	clifton.karam@lennar.com	101%
4	22-00013	Ventura South of FM 78; Ventura Spring Meadows; Ventura Unit 10-A; Liberte Ventura; Kendall Brook	WALZEM RD	974	2,342	13	118	6/14/2022	Accepted	Starlight Homes of Texas LLC	(210) 967-3900	blake.harrington@ashtonwoods.com	144%
4	19-00047	Walzem Park MHP	PARADISE RD	130	0	5	130	6/16/2021	Accepted	Walzem Park MHC LLC		wtconnell@comcast.net	55%
174	174												

Meaux, Lisa

From: Robert Williams <crwcattle@gmail.com>
Sent: Wednesday, December 20, 2023 9:16 PM
To: Meaux, Lisa
Subject: [EXTERNAL] Regarding project #247247

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Dear Lisa,

My name is Robert Williams, Mayor of Jourdanton, Texas. The project #247247 is running in our town. There are many objects in the way for those projects. Here is a list of objects:

- 1- Airports and helipads at the hospitals between Jourdanton and Pleasanton.
- 2- Toyota Plant
- 3- Electrical Plant @ 1604 and 16
- 4- Subdivisions along Hwy 16
- 5- Sand and Gravel Pits in Southern Bexar County and Northern Atascosa County
- 6- Strawberry Festival Grounds Westside of Poteet.
- 7- Please stay on the west side of 16 around Jourdanton going to the San Miguel Electrical Plant

Yours truly,
Robert A Williams
Mayor of Jourdanton, Texas
Cell: (830) 480-0004

From: [Kerry McCollough](#)
To: [Williams, Denise](#)
Cc: [Robert Buentello](#); [Melissa Popham](#)
Subject: [EXTERNAL] Fwd: City of Poteet and the Environmental Assessment for the Howard Road/San Miguel Transmission Line Project
Date: Friday, January 12, 2024 9:09:05 AM
Attachments: [A302 Part-58-Full EA-Checklist - Poteet 2019.pdf](#)

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.

Thanks very much for calling me--here's what I sent Lisa.

Appreciate you--Kerry

----- Forwarded message -----

From: **Kerry McCollough** <kmccollough@poteettexas.gov>
Date: Tue, Dec 26, 2023 at 4:06 PM
Subject: City of Poteet and the Environmental Assessment for the Howard Road/San Miguel Transmission Line Project
To: <lisa.barko@powereng.com>
Cc: Robert Buentello <rbuentello@poteettexas.gov>, Melissa Popham <mpopham@poteettexas.gov>

Good afternoon,

Thanks for taking my call today. The attached will serve as the starting point, an outline if you will. We recognize you seek information that is city-wide and not a specific location within Poteet.

If the attached checklist can be abbreviated and still meet your needs, it would be greatly appreciated to learn this especially as January 7 will be here before long. By the way, the 7th is a Sunday, so please let us know if that is indeed the deadline.

Many thanks--Kerry

--

Kerry McCollough

Public Works Administrator

City of Poteet
PO Box 378 / 491 Ave H
Poteet Texas 78065
P. 830.742.3574 Extension 110 / F. 830.742.8747

www.poteettx.org [poteettx.org]

--

Kerry McCollough

Public Works Administrator

City of Poteet

PO Box 378 / 491 Ave H

Poteet Texas 78065

P. 830.742.3574 Extension 110 / F. 830.742.8747

www.poteettx.org [poteettx.org]

Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: 2019 CDBG City of Poteet Sewer Improvements Project #7219339

Responsible Entity: City of Poteet, 491 Avenue H, Poteet, Atascosa County, TX 78065

Grant Recipient (if different than Responsible Entity): Same

State/Local Identifier: #7219339

Preparer: Melisa Durham, Environmental Specialist
Langford Community Management Services, Inc.
2901 County Road 175, Leander, TX 78641-1608
(512) 452-0432, melisa@lcmsinc.com

Certifying Officer Name and Title: Willie Leal, Jr., Mayor

Consultant (if applicable): Margaret Hardin, Grant Administrator
Langford Community Management Services, Inc.
2901 County Road 175, Leander, TX 78641-1608
(512) 452-0432, margaret@lcmsinc.com

Direct Comments to: Melisa Durham, Environmental Specialist
Langford Community Management Services, Inc.
(512) 452-0432, melisa@lcmsinc.com

Project Location: Poteet, Atascosa County, TX 78065

LOCATION	
Wastewater Treatment Plant	1304 S. 9 th Street, Lab Building, 29.028195, -98.568649
WWTP Lift Station	Approximately 518' west of the WWTP, 29.028933, -98.570161

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Sewer Improvements: Contractor shall replace pumps and controls at the main lift station to prevent frequent maintenance issues and disruptions in service. Contractor shall install two lift station pumps, one pump control system, one SCADA system, all necessary appurtenances, and Administration and Engineering costs. Per Bradley Koether, PE, Rakowitz Engineering and Surveying on 1/28/2020, the SCADA will be installed ON the lift station and ON the lab building at the WWTP. There is enough room at the lift station to mount the replacement pumps on top of the wet well. There will be no new ground disturbance.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

By installing new pumps above-ground at the lift station, the city employees will be able to service and troubleshoot more efficiently. The SCADA system for both the lift station and the WWTP will aid in allowing the pumps and associated equipment to be remotely monitored and controlled, allowing the city to allocate its manpower more effectively. The upgrade of the main lift station will benefit the entire city

by improving the sewer flow to the WWTP, reducing the potential for pump outages, and minimizing potential environmental impacts.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The pumps at the main list station have been causing problems for the city since 2012. In addition to issues concerning the reliability of the existing pumps, they are also more difficult to service in the event of a malfunction because of their location 30-feet below ground inside the wet well. Replacing pump components requires them to be hoisted overhead in tight quarters, which, in turn creates significant downtime for the wastewater treatment plant. This is an intensive job, especially in terms of the manpower required to work on the pumps. SCADA systems are needed to monitor and control the associated equipment remotely, to allow city employees to allocate their manpower more effectively.

Funding Information

Grant Number	HUD Program	Funding Amount
7219339	CDBG	\$275,000
	Applicant	\$41,250

Estimated Total HUD Funded Amount: \$275,000

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$316,250

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is not within 15,000-feet of a military airport or within 2,500-feet of a civilian airport. The nearest military airport is Kelly Field Airport in San Antonio, approximately 23 miles north of the project sites. The nearest civilian airport is the Pleasanton Municipal Airport, approximately 5.5 miles south of the project sites. There will be no adverse effect from airport hazards. Attachment 1: AirNav.com results, Active Military Installations maps and Google maps for distances.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Poteet is approximately 127 miles from the nearest CBR unit. There will be no adverse effect on the coastal barrier resources.

Improvement Act of 1990 [16 USC 3501]		Attachment 2: USFWS Coastal Barrier Resources System Mapper.
<p>Flood Insurance</p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The City of Poteet participates in FEMA's National Flood Program. The lift station site is in Zone A of the 100-Year Floodplain, and totals approximately <1-acre of impact on the floodplain. The 8-Step for Floodplains will be followed. The WWTP is in Zone X. There will be no adverse effect on the floodplain.</p> <p>Attachment 3: FEMA National Flood Program excerpt page and FEMA FIRM #48013C0190C, Panel 190 of 750, effective 11/4/10, and EPA NEPAAssist map for approximate acreage.</p>
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
<p>Clean Air</p> <p>Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project does not include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities or five or more dwelling units. Atascosa County is not in a Nonattainment Area. There will be no adverse effect to or from air quality.</p> <p>Attachment 4: HUD Air Quality worksheet and TCEQ Texas' Nonattainment and Near Nonattainment Map.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project area is approximately 78 miles from the Texas Coastal Management Program boundary at Victoria County. There will be no adverse effect on the coastal zone area.</p> <p>Attachment 5: GLO Texas Coastal Management Program map and EPA NEPAAssist map for distance.</p>
<p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>EPA EnviroMapper for hazardous facilities: <u>No hazardous facilities within ½ mile.</u></p> <p>TCEQ Central Registry Query by Program results: <u>Brownfield Site Assessment Program</u>: No results. <u>IHW (Industrial Hazardous Waste) Corrective Action</u>: None active within ½ mile. <u>IHW (Industrial Hazardous Waste)</u>: None active within ½ mile. <u>IHWNP (Industrial and Hazardous Waste Non-Permitted)</u>: None active within ½ mile. <u>LPSTRMD (Leaking Petroleum Storage Tank Remediation)</u>: None active within ½ mile. <u>MSWD (Municipal Solid Waste Disposal)</u>: No results. <u>MSWNP (Municipal Solid Waste Non-Permitted)</u>: None active within ½ mile. <u>MSWPROC (Municipal Solid Waste Processing)</u>: No results. <u>MSWRMD (Municipal Solid Waste Remediation)</u>: No results. <u>PSTNonReg (Petroleum Storage Tank Non-Registered)</u>: No USTs on the property or adjoining properties.</p>

		<p><u>PSTReg (Petroleum Storage Tank Registered)</u>: No USTs (Underground Storage Tanks) on the property or adjoining properties. ASTs (Above-Ground Storage Tanks) are not applicable. Reference the HUD Explosive and Flammable Facilities Worksheet.</p> <p><u>Radioactive Waste Disposal</u>: No results.</p> <p><u>Radioactive Waste Storage & Processing</u>: No results.</p> <p><u>Superfund</u>: No results.</p> <p>ASTM Search Radii Standards for Hazardous Materials. <i>Source: NETROnline Environmental Radius Report with one-mile radius unless otherwise noted:</i></p> <p><u>NPL (National Priorities List)</u>: None within one mile.</p> <p><u>Delisted NPL</u>: None in Poteet (<i>Source: EPA</i>).</p> <p><u>CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System)</u>: None within one mile.</p> <p><u>CERCLIS NFRAP (CERCLIS + No Further Remedial Action Planned)</u>: None within one mile.</p> <p><u>RCRA CORRACTS (Resource Conservation and Recovery Act Corrective Action)</u>: None within one mile.</p> <p><u>RCRA non-CORRACTS</u>: None within one mile.</p> <p><u>RCRA Generators</u>: None on the property or adjoining properties.</p> <p><u>Institutional control/engineering control registries (ICIS)</u>: None within one mile.</p> <p><u>ERNS (Emergency Response Notification System)</u>: None on the property.</p> <p><u>Landfill and/or solid waste disposal site</u>: None within one mile.</p> <p><u>Leaking Storage Tank</u>: None within one mile.</p> <p><u>Registered Storage Tank</u>: No USTs on the property or adjoining properties (<i>Source: TCEQ</i>).</p> <p><u>Voluntary Cleanup</u>: None within one mile.</p> <p><u>Brownfield</u>: None within one mile.</p> <p>There will be no adverse effects from contamination or toxic substances.</p> <p>Attachment 6: EPA NEPAssist map for EPA (hazardous) Facilities, TCEQ Central Registry Query Summary Sheet, NETROnline Environmental Radius Report, EPA Deleted NPL sites results, and all supporting documentation.</p>
<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the USFWS Texas Coastal Ecological Services Field Office Official Species List for the project area, there are no critical habitats present. There will be no adverse effect on endangered species.</p> <p>Attachment 7: USFWS Official Species List.</p>
<p>Explosive and Flammable Hazards</p>	<p>Yes No</p>	<p>The proposed HUD-assisted project does not include a hazardous facility (a facility that mainly stores,</p>

<p>24 CFR Part 51 Subpart C</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries), nor does it include activities (development, construction, rehabilitation) that will increase residential densities, or conversion. Acceptable Separation Distance calculations are not required.</p> <p>Attachment 8: HUD Explosive and Flammable Hazards Worksheet.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Project activities do not include new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use. The project area is already in urban use and is not subject to the Farmland Protection Policy Act (FPPA).</p> <p>Attachment 9: HUD Farmlands Protection Worksheet.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The WWTP site is in Zone X, outside of the 100-Year Floodplain. The lift station site is in Zone A of the 100-Year Floodplain. The 8-Step for Floodplains will be followed. Approximately <1-acre will be involved in the floodplain. There will be no adverse effect on the floodplain.</p> <p>Attachment 10: FEMA FIRM #48013C0190C, Panel 190 of 750, effective 11/4/10, and EPA NEPAAssist map for approximate acreage.</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>A Request for Exemption from SHPO Review was approved under Stipulation V (F). This covers Tribal consultation, as well.</p> <p>Attachment 11: Exemption from SHPO Review documentation.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Project activities do not involve new construction for residential use or rehabilitation of an existing residential property; nor is the project a research demonstration project for disaster assistance. BMPs for noise control during construction will be observed. Construction noise will cease nightly. Noise control and abatement are not required. There will be no adverse effect to or from noise.</p> <p>Attachment 12: HUD Noise Worksheet.</p>
<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The project does not consist solely of acquisition, leasing or rehabilitation of an existing building. The project site is not located on a sole source aquifer. There will be no adverse effect on the aquifer.</p> <p>Attachment 13: EPA Sole Source Aquifers Region 6 Edwards Aquifer I and II Map and HUD Sole Source Aquifers worksheet.</p>
<p>Wetlands Protection</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>There is a Freshwater Emergent Wetland over and extending beyond the WWTP project area. There will be no adverse effect as the project activities will add</p>

Executive Order 11990, particularly sections 2 and 5		equipment to the existing lab building, of which approximately .01 acres is in the wetland. The 8-Step Process will be followed. Attachment 14: USFWS National Wetlands Inventory Map and EPA NEPAAssist map for NWI Wetlands for approximate acreage.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	The project site is approximately 199 miles from the portion of the Rio Grande River that is classified as a Wild and Scenic River. There are no Study Rivers in Texas other than the Rio Grande River. There are no NRI Rivers in Atascosa County. There will be no adverse effect on wild and scenic rivers, study rivers, or NRI rivers. Attachment 15: Rivers.gov National Wild and Scenic Rivers System results, EPA NEPAAssist map for distance, National Park Service National River Inventory List, and Rivers.gov Wild & Scenic River Studies.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	There were no adverse environmental impacts identified in any other compliance review portion of this project's total environmental review. There are no adverse environmental impacts that are disproportionately high for low-income and/or minority communities. These activities shall benefit 3,285 persons of which 2,025 or 62% are of low-to-moderate income. Attachment 16: HUD Environmental Justice Worksheet.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	<p>Considerations are whether the project is consistent with the community's comprehensive plan, whether it will be unduly influenced by a planned transition of land uses, whether the current zoning classification or land use must be changed, and whether the project conforms to locally-adopted design guidelines and surrounding scale, density, size and mass.</p> <p>The project activities will replace the pumps and controls at the main lift station with more efficient, reliable equipment, and install monitoring systems at the lift station and in the wastewater treatment plant lab building. There will be no change to land use or zoning, and no impact on scale and urban design. Refer to the Project Description.</p>
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	<p>Considerations are whether the project site will be significantly affected by unsuitable soil conditions, slope concerns, sedimentation conditions, drainage and storm water runoff.</p> <p>The project activities will replace the pumps and controls at the main lift station with more efficient, reliable equipment, and install monitoring systems at the lift station and in the wastewater treatment plant lab building. There will be no adverse effect to or from soils, erosion, drainage or water runoff. Reference the Project Description and site photos.</p>
Hazards and Nuisances including Site Safety and Noise	2	<p>Considerations are whether the project will be affected by a natural hazard (i.e. volcanoes, landslides, cliffs, bluffs, hazardous terrain, etc.), man-made site hazards (i.e. chemical tank car terminals, oil or gas wells, quarries, etc.), or air pollution generators and other nuisances. Consider whether the project itself is a noise-generating facility in a noise-sensitive area.</p> <p>There are no natural or man-made hazards or nuisances on the project sites. BMPs for site safety and noise control will be followed. There will be no adverse effects. Reference the site photos.</p>
Energy Consumption	2	<p>Consideration is whether the project design fully exploits potential energy-saving measures.</p> <p>The project activities will replace the pumps and controls at the main lift station with more efficient, reliable equipment, and install monitoring systems at the lift station and in the wastewater treatment plant lab building. To the extent possible, energy saving measures will be incorporated.</p>
Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	<p>Considerations are whether the project will significantly increase or decrease temporary and/or permanent employment opportunities, the profile of new jobs, and whether jobs will go to area residents.</p> <p>The proposed project will not significantly increase or decrease temporary and/or permanent employment, change income patterns in</p>

		the project area, or cause a population increase. There will be no adverse effect on employment/income patterns. Reference the Project Description.
Demographic Character Changes, Displacement	2	<p>Considerations are whether the project will contribute to reducing or significantly altering the racial, ethnic, or income segregation of the area's housing, result in physical barriers or difficult access that would isolate a neighborhood or population group, or displace any individuals or families.</p> <p>This project will not contribute to reducing or significantly altering the demographics (racial, ethnic or income) of the area's housing, or cause displacement of any individuals or families. There will be no adverse effect on the demographics of the project area or city from this project.</p>
Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	1	<p>The two fundamental considerations are <i>adequate capacity</i> for children in the schools and <i>safe access</i> to schools.</p> <p>Educational Facilities: All of Poteet's schools are approximately .91 miles north of the project area; therefore, there will be no adverse effect on the safe access to schools. The project will cause no population increase, which not affect the availability of schools.</p> <p>Cultural Facilities: The Public Library is approximately .58 miles NW of the project locations; therefore, there will be no adverse effect on the access to the library. No other cultural facilities were found. There will be no population increase due to the project, and no adverse effect on the availability of cultural resources. The sewer improvements project will have a beneficial effect on any educational and cultural facilities served by the sewer system.</p> <p>Attachment 17: Google maps of Educational and Cultural Facilities. Also reference the Project Description.</p>
Commercial Facilities	1	<p>The two key considerations are evaluating the adequacy of existing commercial facilities to service the development, and the impact of the project on surrounding commercial establishments.</p> <p>This sewer project will not increase or decrease the population; therefore, there will be no adverse effect on adequacy or availability of commercial facilities. This sewer improvements project will have a beneficial effect on any commercial facilities serviced by this sewer system. Reference the Project Description.</p>
Health Care and Social Services	1	<p>Relevant health care issues to be considered are adequate access to, and adequacy of, hospitals, emergency facilities, clinics, physician services and services for the special-needs population, such as families, elderly and handicapped. The same relevant issues apply to social services, which are defined as services provided by governmental social service agencies or public or private groups for drug addiction, alcoholism, mental disorders, halfway houses, drop-in centers, family counseling centers, day care centers, services for senior citizens and the handicapped, nutrition centers, Meals on Wheels, income maintenance, manpower programs, etc.</p>

		<p>Health Care Services: The Poteet Family Health Center is approximately .70 miles NW of the project area. Social Services: Camino Real Community MHMR Center is approximately .59 miles north of the project area. There will be no population increase from the project; therefore, the availability of these resources will not be adversely affected. The project activities will occur at the main lift station and WWTP; therefore, there will be no adverse effect on the access to these resources. There will be a beneficial effect on any health care and social services facilities served by this sewer system.</p> <p>Attachment 18: Google map of health care and social service resources. Also reference the Project Description.</p>
Solid Waste Disposal / Recycling	2	<p>Considerations are for construction period solid waste disposal, and <i>handling of completed project solid waste</i>.</p> <p>The project activities will replace the pumps and controls at the main lift station with more efficient, reliable equipment, and install monitoring systems at the lift station and in the wastewater treatment plant lab building. Construction debris will be disposed of in an appropriate manner. This project will not cause a substantial increase or decrease in population; therefore, the adequacy of or availability of existing solid waste disposal and recycling methods will not be affected. Reference the Project Description.</p>
Wastewater / Sanitary Sewers	1	<p>The consideration is whether the existing wastewater/sewer system is satisfactory to <i>service the completed project</i>.</p> <p>The pumps at the main list station have been problematic since 2012. In addition to issues concerning the reliability of the existing pumps, they are also more difficult to service in the event of a malfunction because of their location 30-feet below ground inside the wet well. Replacing pump components requires them to be hoisted overhead in tight quarters, which, in turn creates significant downtime for the wastewater treatment plant. This is an intensive job, especially in terms of the manpower required to work on the pumps. SCADA systems are needed to monitor and control the associated equipment remotely, to allow city employees to allocate their manpower more effectively. Sewer Improvements: Replace pumps and controls at the main lift station with more efficient, reliable equipment and install monitoring systems at the lift station and wastewater treatment plant. Construction shall consist of the installation of above-ground pumps, one pump control system, and SCADA systems for the lift station and WWTP, and Administration and Engineering costs. The lift station was installed around 1980 and the WWTP was built in 1985 and updated in 2005. There will be a beneficial effect on these resources. Reference the Project Description, site map and site photos.</p>
Water Supply	2	<p>The consideration is whether there is a private company or public organization or system that will <i>meet the water demands of the proposed project</i>.</p> <p>Project activities will improve the wastewater service and will have no adverse effect on the water supply. Reference the Project Description.</p>
Public Safety - Police, Fire and Emergency Medical	1	<p>Considerations are whether the emergency service resources are sufficient to <i>service the completed project</i>, and whether response time is sufficient.</p>

		<p>This project will cause no increase in the population; therefore, there will be no additional burden on public safety resources in terms of manpower and equipment. The Voluntary Fire Department is approximately .67 miles NW of the project sites. The Police Department is slightly further in distance. There will be no adverse effect on the access to or from these public safety resources. There will be a beneficial effect on public safety facilities served by this sewer system.</p> <p>Attachment 19: Google map of public safety resources. Also reference the Project Description and site map.</p>
Parks, Open Space and Recreation	2	<p>Considerations are whether the proposed project will <i>overload existing open space, recreational or cultural facilities</i>, and whether they are within reasonable walking distance or is adequate public transportation available.</p> <p>Poteet Canyon Park is located approximately .52 miles north of the project sites, in the middle of town. The sewer improvements will cause no substantial increase or decrease in the population; therefore, there will be no adverse effect on the availability of any recreational resources. Any public restroom facilities in city parks or recreational areas would benefit from the sewer improvements.</p> <p>Attachment 20: Google map of park. Also reference the Project Description and site map.</p>
Transportation and Accessibility	2	<p>Four sub-elements of transportation should be analyzed: access, balance, safety and level of service.</p> <p>This sewer project will not substantially increase or decrease the population; therefore, the four sub-elements of transportation will not be adversely affected.</p>
Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	<p>Unique natural features are primarily geological features which are unique in the sense that their occurrence is infrequent, or they are of special social/cultural, economic, educational, aesthetic or scientific value. Development on or near them may render them inaccessible to investigators or visitors or otherwise limit potential future use and appreciation of these resources.</p> <p>There are no unique natural features, such as sand dunes, waterfalls, unique rock outcroppings, caves with limestone or gypsum deposits, etc. on or near the project sites; therefore, there will be no adverse effect on or from features of this type. There are no water features on the project site other than the wastewater operations. The project activities will not cause a substantial increase in impervious surface area that would reduce groundwater recharge.</p> <p>Attachment 21: EPA NEPAassist Water Features map. Also reference the Project Description, site map, site photos, and Wetland Protection, Attachment 14.</p>
Vegetation, Wildlife	2	<p>Considerations are whether the project will <i>introduce nuisance species, damage/destroy plant communities or species, or damage/destroy trees without replacement</i>.</p>

		Project activities will take place at the existing lift station and WWTP, in previously disturbed areas and on existing structures. There are no critical habitats according to the USFWS Official Species List. Reference the Project Description, site map and Official Species List, Attachment 7.
Other Factors		

Additional Studies Performed: None

Field Inspection (Date and completed by): 11/1/19 Margaret Hardin, Grant Administrator

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

AirNav.com	USFWS	FEMA	TCEQ
NETROnline	EPA	HUD	USDA
Rivers.gov	Google	City of Poteet	National Park Service
Bradley Koether, P.E.	GLO		

List of Permits Obtained: None required

Public Outreach [24 CFR 50.23 & 58.43]:

Early notice published in the Pleasanton Express on 3/11/20.

Final notice published in the Pleasanton Express on [REDACTED]/20.

Cumulative Impact Analysis [24 CFR 58.32]:

Sewer Improvements Project # 7217369 replaced the deficient sewer main that enters the lift station near the WWTP to eliminate problems of inflow and infiltration. Construction included the installation of approximately 1,005 LF of 10" sewer line, 4 manholes, and all associated appurtenances.

Cumulatively, these projects are improving the city's wastewater management service.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Per Bradley Koether, P.E., Rakowitz Engineering and Surveying, there were no alternatives considered. Due to the nature of the project, replacing pumps on the existing lift station was the only feasible solution.

No Action Alternative [24 CFR 58.40(e)]:

Taking no action would incur no costs for the sewer improvements project and would cause no construction-related environmental impact but would not resolve the issues being experienced with the wastewater system.

Summary of Findings and Conclusions:

After a thorough research of all statutes, laws, authorities and executive orders cited at 24 CFR 58, and finding that the proposed project is in compliance with all the programs and categories concerned, it is determined that there is no significant impact to the environment from these project activities.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
None	

--	--

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: _____ Date: _____

Name/Title/Organization: Melisa Durham, Environmental Specialist
 Langford Community Management Services, Inc.
 2901 CR 175, Leander, TX 78641-1608
 (512) 452-0432, melisa@lcmsinc.com

Certifying Officer Signature: _____ Date: _____

Name/Title: Willie Leal, Jr., Mayor

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Appendix B
Public Involvement

This page left blank intentionally.

**CLASSIFIEDS IN PRINT..
CLASSIFIEDS ONLINE...**

VIEW OUR CLASSIFIEDS FREE ONLINE AT:
WWW.PLEASANTONEXPRESS.COM



Autism Walk on April 6
Public is invited to the Peace for the Pieces Special Needs Corp Super Hero Autism Walk at the Jour-danton City Park from 9 a.m.-1 p.m. Walk kicks off at 11 a.m. Face painting, DJ music, vendors, annual Chalk Off, silent auction, puzzle piece auction and photo ops. Sponsored by Price Chevrolet. For details call 830-570-2782.

Event funds large por-tion of the club's service projects and furthering education. For more infor-mation, contact Theresa McAllister at 210-262-8319 or Jim Andrus at 830-570-0918.

cart and meal. Cash prizes and payouts awarded. To sign up as golfer, call Mike Yanity at 210-748-4351 or the Pleasanton Country Club at 830-281-3486.

Beautiful You at Ameri-can Legion Post 436
Mondays from 5:30-7:30 p.m. and Tuesdays and Thursdays by appoint-ment only, 1404 Zanderson Ave. in Jourdanton. Prom dresses, suits and acces-sories free to local high school students. For de-tails contact Diana G. Lea at 830-399-9151 or Patricia Hewitt at 830-480-1935.

Local AA meetings

Every Monday at 7:30 p.m. in classroom #1 at St. Matthew Catholic Church, 1608 Campbell Ave. in Jourdanton. Every Tues-day at 5:30 p.m. in Hurley building by Plestex Movie Theater, E. Johnson St. in Pleasanton. Every Thurs-day is women's meeting at 5:30 p.m. in Hurley build-ing by Plestex.

TO FEATURE an event in Out & About, email Lifestyles Editor Lisa Luna at lluna@pleasantonexpress.com or call our office at 830-569-6130.

LAURA PAWELEK
COUNTY TREASURER
ATASCOSA COUNTY
1 COURTHOUSE CIRCLE DR., SUITE 103
JOURDANTON, TEXAS 78026

**Atascosa County Treasurer's Report Order
For the Month of February, 2024**

The Atascosa County Commissioner's Court makes order stating that Article 114.026, Subsection c has been complied with for the month of February, 2024 and monthly reports of the County Treasurer, **Laura Pawelek**, have been submitted for audit and approval. The amounts of cash and other amounts in the custody of the County Treasurer are:

Investment	\$ 38,738,475.95
Total Funds	\$ 38,738,475.95
Principal Indebtedness	\$ 17,305,000.00
Percent Invested	100.0 %

SWORN TO: *[Signature]*
Atascosa County Judge

[Signatures]
Atascosa County Commissioner Pet 1 Atascosa County Commissioner Pet 2
Atascosa County Commissioner Pet 3 Atascosa County Commissioner Pet 4

SWORN TO AND SUBSCRIBED TO BY THE ABOVE AFFIANTS ON THIS DAY OF *March*, 2024.

Theresa Carrasco, County Clerk
Atascosa County, Texas BY *[Signature]*

Vendors sought for Jourdanton 1909 Found-ers' Day celebration
Saturday, May 18, rain or shine. Complete the registration form and return it to 1306 Simmons Ave. in Jourdanton or visit the website www.jourdan-ton1909.com.

Nights of Hope for Atas-cosa County April 5-7
Pleasanton River Park from 5-8:30 p.m. each night. Main event at 7 p.m. Community event filled with belonging, purpose and compassion. Food trucks, giveaways, live music, booths, games and message of hope. For info contact 830-200-6799.

MJ's Trike Fundraiser at Farm to Familia April 6
Help this 9-year-old raise money for a trike, 6 p.m. at 55 Meadows Rd. in Poteet. Cornhole tour-nament and cookie sale. Contact Leslie for raffle tickets, 830-480-3800.

First Methodist Church of Poteet dedication
Sunday, April 7 at 12:30 p.m. at 249 4th St. in Po-teet. Ceremony to dedicate an official Texas Historical Marker to commemorate the church's historic im-pact in Atascosa County.

Jourdanton Rotary Club Golf Classic April 7
Tee time at 1 p.m. at Pleasanton Country Club. Cost is \$100 per player with two player scramble teams. Meal to follow.

Sunshine House Coffee Pop-Up Shops April 13
All local home-based businesses are encouraged to take part in the Pop-Up Shops event, 1752 E. High-way 97 in Jourdanton, 9 a.m.-2 p.m. There is no fee. Message Sunshine House Coffee if you're interested.

Swing Into Action Golf Tournament April 20
Event by Safer Path Fam-ily Violence Shelter. Tee time at noon at Pleasanton Country Club. Fee is \$100 per person and \$200 per team which includes golf

ATTORNEY AT LAW

DAVID B. WILKERSON

FAMILY LAW:
DIVORCES • CHILD CUSTODY • CHILD SUPPORT • OAG & CPS CASES

FELONIES & MISDEMEANORS:
DWI • DRUG CASES • ASSAULTS

Also....WILLS and PROBATE, COLLECTIONS AND CDL TICKETS
-- BAIL BONDS AVAILABLE --

P.O. Box 713 • 216 N. Bryant • Pleasanton, TX 78064
(830) 281-8484
FAX: (830) 281-8686 • E-mail: dwilkersonlaw@yahoo.com
- Se Habla Español -

SIFT
CONTINUED FROM PAGE 1A

then move on to be judged at the festival on Saturday, April 13.
The Strawberry Sift is a way of narrowing down the berry entries chosen to re-turn to final judging at the Poteet Strawberry Festival. Berries will be available for sale during the sift at \$40/flat for grower-select-ed strawberries and \$50/flat for showberries.

Poteet Strawberry 5K & 1 Mile Run/Walk
The TRICity Road Warriors and IAAP timing

are gearing up for the 4th Annual Poteet Strawberry 5K & 1 Mile Run/Walk April 6. The 1-mile walk will begin at 7:30 a.m. followed by the 5k at 8 a.m. This open course provides some beauty of the outdoors from the grounds to the countryside.

Last year's run neared 200 participants. Register at runsignup.com then click on "Find a Race." Type in "4th Annual Poteet Strawberry: 5k and 1-mile Run/Walk" and register. You also have an option to create your team, just make sure you tell your group to click on your team name.

The Strawberry Run/Walk is the perfect kick-off to the morning. Following the run, athletes may treat themselves to any of the food trucks on hand as well as the delicious straw-berries for sale.

Poteet Grange Youth Arts and Crafts Contest

The Poteet Grange invites Atascosa County youth to its Arts and Crafts Contest. Logan and Morgan Knox started the contest last year and opened

Bring your entries from 11 a.m. - noon to the Gary Denton Pavilion on the Poteet Strawberry Festival grounds. The show will be

open for public viewing throughout the afternoon. Winners are asked to please pick up their entries later in the afternoon.

Prizes in each class will include Reserve Champion, Champion and Best in Show. There will be three age groups (5-12, 13-18, 19+).

Categories are:
• Needlework: Crochet, Knit, Embroidery, Sewing and Needlefelt.
• Photography: Nature, Sky, Places/Architecture
• Art: Oil, Acrylics, Watercolor, Drawing and Digital. Please note, subject matter for the Art category is the choice of the artist.

PROPOSED CONSTRUCTION OF A NEW TRANSMISSION LINE

“

CPS Energy and South Texas Electric Cooperative(STEC) will host a public meeting regarding the construction of a new transmission line south of San Antonio and traversing both Bexar and Atascosa Counties.

April 2, 2024 6:00 p.m. – 8:00 p.m. Southside High School ACES Cafeteria 19190 US-281 San Antonio, TX 78221	April 4, 2024 6:00 p.m. – 8:00 p.m. Pleasanton High School Cafeteria 831 Stadium Dr. Pleasanton, TX 78064
---	---

CPS Energy representatives will be available to receive comments and answer questions from area residents. This event will have an informal “come and go” type format consisting of information stations addressing specific areas of the project. Attendees are encouraged to review each station and ask questions.

This event is free and open to the public.

For more information, please contact
Antonio DeMendonca Project Manager, CPS Energy at **210-353-2018**, or
Arthur H. (Holly) Gifford Transmission Project Coordinator, STEC at **361-485-6134**.

CPS ENERGY **STEC**

Cyprus ships carrying 400 tons of food and supplies head to Gaza

ASSOCIATED PRESS

JERUSALEM — A three-ship convoy left a port in Cyprus on Saturday with 400 tons of food and other supplies for the Gaza Strip as concerns about hunger in the territory soar.

World Central Kitchen said the vessels and a barge carried enough supplies to prepare more than 1 million meals from items such as rice, pasta, flour, legumes, canned vegetables and proteins. Also on board were dates, traditionally eaten to break the daily fast during the Muslim holy month of Ramadan.

It was not clear when the ships would reach Gaza. Earlier this month, one ship delivered 200 tons of food, water and other aid.

The United Nations and its partners have warned that famine could occur in devastated, largely isolated northern Gaza as early as this month. Humanitarian officials say deliveries by sea and air are not enough and that Israel must allow far more aid by road. The top U.N. court has or-



Ahmad Hasaballah/Getty Images

Palestinians line up for free food before breaking the Ramadan fast Saturday in Rafah, Gaza Strip.

dered Israel to open more land crossings and take other measures to address the crisis.

The U.S. military said it released over 100,000 pounds of aid in an air-drop Friday and has given almost 1 million pounds overall, part of a multi-country effort.

Meanwhile, Egypt's state-run Al Qahera TV said truce negotiations between Israel and Hamas will resume today, citing an unnamed Egyptian security source. The channel has close ties to the country's intelligence services.

Just one weeklong cease-fire has been

achieved in the war that began after Hamas-led militants stormed across southern Israel on Oct. 7, killing 1,200 people, mostly civilians, and taking about 250 others hostage. On Saturday, some Israelis, including relatives of remaining hostages, again rallied to show frustration with Prime Minister Benjamin Netanyahu's government and urge him to resign.

Nearly six months of war has destroyed critical infrastructure in Gaza including hospitals, schools and homes as well as roads, sewage systems and the electrical grid. Gaza's Health Ministry

says 32,705 Palestinians have been killed, with 82 bodies taken to hospitals in the past 24 hours. The Health Ministry doesn't distinguish between civilians and combatants in its toll but has said the majority of those killed have been women and children.

Israel says that over one-third of the dead are militants, though it has not provided evidence to support that, and it blames Hamas for civilian casualties because the group operates in residential areas.

The war has displaced over 80% of Gaza's population and pushed hundreds of thousands to the brink of famine, the U.N. and international aid agencies say. Israel's military said it continued to strike dozens of targets in Gaza, days after the U.N. Security Council issued its first demand for a cease-fire.

The U.S. also welcomed the formation of a new Palestinian autonomy government, signaling it was accepting a revised Cabinet lineup as a step toward political reform.

Ruling weakens Netanyahu's hold

By Julia Frankel
ASSOCIATED PRESS

JERUSALEM — Israel's Supreme Court ruling curbing subsidies for ultra-Orthodox men has rattled Prime Minister Benjamin Netanyahu's governing coalition and raised questions about its viability as the country presses on with the war in Gaza.

Netanyahu has until Monday to present the court with a plan to dismantle what the justices called a system that privileges the ultra-Orthodox at the expense of the secular Jewish public.

If that plan alienates the ultra-Orthodox lawmakers on whose support he depends, his coalition could disintegrate and the country could be forced to hold new elections.

Here's a breakdown of the decision and what it might spell for the future of Israeli politics.

What does the decision say?

Most Jewish men are required to serve nearly three years in the military, followed by years of reserve duty. Jewish women serve two mandatory years.

But the politically powerful ultra-Orthodox, who make up roughly 13% of Israeli society, have traditionally received exemptions while studying full time in religious seminaries, or yeshivas.

This years-old system has bred widespread resentment among the broader public — a feeling that has deepened during nearly six months of war. More than 500 soldiers have been killed in fighting, and tens of thousands of Israelis have had their careers, studies and family lives disrupted because of reserve duty.

The Supreme Court ruled that the current system is discriminatory and gave the government until Monday to present a new plan, and until June 30 to pass one. Netanyahu asked the court Thursday for a 30-day extension to find a compromise.

The court did not immediately respond to his request. But it issued an interim order barring the government from funding the monthly subsidies for religious students of enlistment age who have not received a deferral from the army. Those funds will be frozen starting Monday.

Why does it threaten Netanyahu?

Vowing to press forward with a war that has harmed the Israeli economy and asked much of its soldiers and reservists, Netanyahu could lose the support of the more centrist elements of his fragile national unity government if he tries to preserve the exemptions for the ultra-Orthodox.

The two centrists in his fragile War Cabinet, both former generals, have insisted that all sectors of Israeli society contribute equally. One, Benny Gantz, has threatened to quit — a step that would destabilize a key decision-making body at a sensitive time in the war.

But the powerful bloc of ultra-Orthodox parties — longtime partners of Netanyahu — want draft exemptions to continue.

The ultra-Orthodox parties have not said what they will do if they lose their preferential status. But if they decide to leave the government, the coalition would almost certainly collapse and the country could be forced into new elections, with Netanyahu trailing significantly in the polls amid the war.

BRIEFS

Israeli military admits to shooting Palestinians

JERUSALEM — Israeli troops shot dead two Palestinians and wounded a third on Gaza's beach, the military acknowledged Saturday, responding to a video broadcast earlier this week by the Al Jazeera television network.

The military said troops opened fire after the men allegedly ignored warning shots.

Al Jazeera said at least two of the three men seen in the blurry videos were waving white flags before being shot at.

In response to the beach shoot-

ings, the Israeli army said Saturday that the video was edited and depicts two separate incidents across different locations in central Gaza. Al Jazeera said both shootings took place close to each other on a beachfront southwest of Gaza City.

Israel blamed for strike on U.N. Lebanon mission

BEIRUT — Three United Nations military observers and a Lebanese interpreter were wounded Saturday while patrolling the southern Lebanese border after a shell exploded near them, the U.N. peacekeeping mission in Lebanon said.

The military observers are part of the United Nations Truce Supervi-

sion Organization, which supports the U.N. peacekeeping mission in southern Lebanon, UNIFIL. UNIFIL spokesperson Andrea Tenenti told the Associated Press that the four wounded were in stable condition.

Local Lebanese media, citing security officials, said an Israeli drone strike targeted the observers in the southern village of Wadi Katmoun near the border town of Rmeich.

The Israeli military on social media platform X, formerly Twitter, said: "Contrary to the reports, the IDF did not strike a @UNIFIL —vehicle in the area of Rmeish this morning."

From wire reports

PROPOSED CONSTRUCTION OF A NEW TRANSMISSION LINE

CPS Energy and South Texas Electric Cooperative (STEC) will host a public meeting regarding the construction of a new transmission line south of San Antonio and traversing both Bexar and Atascosa Counties.

April 2, 2024

6:00 p.m. – 8:00 p.m.

Southside High School
ACES Cafeteria

19190 US-281
San Antonio, TX 78221

April 4, 2024

6:00 p.m. – 8:00 p.m.

Pleasanton High School
Cafeteria

831 Stadium Dr.
Pleasanton, TX 78064

CPS Energy representatives will be available to receive comments and answer questions from area residents. This event will have an informal "come and go" type format consisting of information stations addressing specific areas of the project. Attendees are encouraged to review each station and ask questions.

This event is free and open to the public.

For more information, please contact

Antonio DeMendonca Project Manager, CPS Energy at **210-353-2018**, or
Arthur H. (Holly) Gifford Transmission Project Coordinator, STEC at **361-485-6134**.



Ad Number: 34325626-01
Insertion Number: N/A
Size: 6 Col x 9.75 in
Color Type: P

Advertiser: CPS Energy
Agency: KGB Texas
Section-Page-Zone(s): A-13-All
Description: PRINT ROP



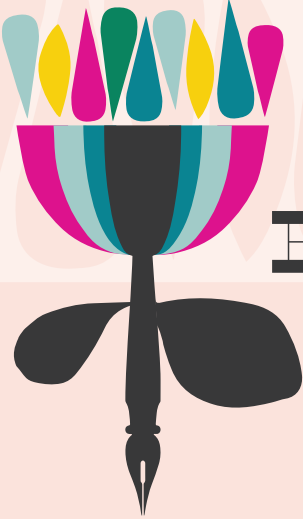
HAPPY EASTER!

May this Resurrection Day bring you peace,
joy, and happiness!

Albert & Elsie Uresti

Bexar County Tax Assessor-Collector

Pol Adv Pd by Campaign to Re-Elect Albert Uresti for Tax Assessor-Collector, P.O. Box 240174,





**APRIL
2024**


**NATIONAL
POETRY
MONTH**

San Antonio

For a full calendar of National Poetry Month events,
visit www.SanAntonio.gov/Arts

#NPMSA2024
@GetCreativeSA
SANANTONIO.GOV/ARTS




PROPUESTA DE CONSTRUCCIÓN DE UNA NUEVA LÍNEA DE TRANSMISIÓN



CPS Energy y South Texas Electric Cooperative (STEC) organizarán una reunión pública sobre la construcción de una nueva línea de transmisión al sur de San Antonio que atravesará los condados de Bexar y Atascosa.

2 de abril de 2024

6:00 p.m. – 8:00 p.m.
Southside High School ACES Cafetería
19190 US-281
San Antonio, TX 78221

4 de abril de 2024

6:00 p.m. – 8:00 p.m.
Pleasanton High School Cafetería
831 Stadium Dr.
Pleasanton, TX 78064

Los representantes de CPS Energy estarán disponibles para recibir comentarios y responder a las preguntas de los residentes del área. Este evento tendrá un formato informal tipo “entrar y salir” y consistirá en estaciones de información que abordarán áreas específicas del proyecto. Se anima a los asistentes a visitar cada puesto y hacer preguntas.

Este evento es gratuito y está abierto al público.

Para más información, póngase en contacto con **Antonio DeMendonca** Director de Proyectos de CPS Energy, llamando al **210-353-2018**, o con

Arthur H. (Holly) Gifford Coordinador de Proyectos de Transmisión de STEC, llamando al **361-485-6134**.

This page left blank intentionally.



MARCH 19, 2024

Dear Landowner:

Thank you for allowing us to serve your energy needs. We invite you to attend an open house to learn about a proposed transmission line project in your area. This project will be completed in collaboration between CPS Energy and South Texas Electric Cooperative (STEC). The Howard Road to San Miguel Transmission Line Project involves the proposed construction of approximately 50 miles of transmission infrastructure traversing parts of Atascosa and Bexar Counties.

The proposed transmission line project will connect the CPS Energy Howard Road station and STEC's San Miguel station.

At the Open House, you will have the opportunity to learn more about this important project and the steps required to complete the work, as well as the transmission line routing options that we are currently evaluating. We welcome your questions, comments, and input regarding this project. CPS Energy and STEC team members directly involved with the project will be present to answer your questions and receive feedback you provide. The Open House will have an informal "come and go" format with information stations addressing specific areas of the proposed project. For your convenience, there will be two Open House sessions to choose from:

**CPS Energy and STEC Open House
Howard Road to San Miguel Transmission Line Project**

April 2, 2024
6:00 p.m. – 8:00 p.m.
Southside High School - ACES Cafeteria
19190 US-281
San Antonio, TX 78221

April 4, 2024
6:00 p.m. – 8:00 p.m.
Pleasanton High School Cafeteria
831 Stadium DR.
Pleasanton, TX 78064

A brochure describing the proposed project and a map of the study area is included in this packet. Additional information will also be available at www.cpsenergy.com/infrastructure. Scroll down to the "Howard Road to San Miguel Project."

We look forward to meeting you, receiving feedback you provide, and answering your questions. Thank you in advance for taking the time to join us.

Sincerely,

Antonio DeMendonca
Project Manager, CPS Energy
S&T Regulatory Support

Arthur H. (Holly) Gifford
Transmission Project Coordinator, STEC



19 DE MARZO DE 2024

Estimado Propietario:

Gracias por permitirnos satisfacer sus necesidades de energía. Le invitamos a asistir a una reunión abierta al público para informarse sobre un proyecto de línea de transmisión propuesto en su área. Este proyecto se realizará en colaboración entre CPS Energy y South Texas Electric Cooperative (STEC). El proyecto de línea de transmisión de Howard Road a San Miguel implica la construcción propuesta de aproximadamente 50 millas de infraestructura de transmisión que atraviesa partes de los condados de Atascosa y Bexar.

El proyecto de línea de transmisión propuesto conectará la estación de Howard Road de CPS Energy y la estación de San Miguel de STEC.

En la reunión abierta al público tendrá la oportunidad de obtener más información sobre este importante proyecto y los pasos necesarios para completar el trabajo, así como las opciones de enrutamiento de la línea de transmisión que estamos evaluando actualmente. Agradeceremos sus preguntas, comentarios y aportaciones sobre este proyecto. Los miembros del equipo de CPS Energy y STEC directamente implicados en el proyecto estarán presentes para responder sus preguntas y recibir sus comentarios. La reunión abierta al público tendrá un formato informal de "entrar y salir" con puestos de información que abordarán áreas específicas del proyecto propuesto. Para su comodidad, podrá elegir entre dos sesiones de reuniones:

**Reunión Abierta al Público de CPS Energy y STEC
Proyecto de línea de transmisión de Howard Road a San Miguel**

2 de abril de 2024
6:00 p.m. – 8:00 p.m.
Southside High School - Cafetería ACES
19190 US-281
San Antonio, TX 78221

4 de abril de 2024
6:00 p.m. – 8:00 p.m.
Cafetería de Pleasanton High School
831 Stadium DR.
Pleasanton, TX 78064

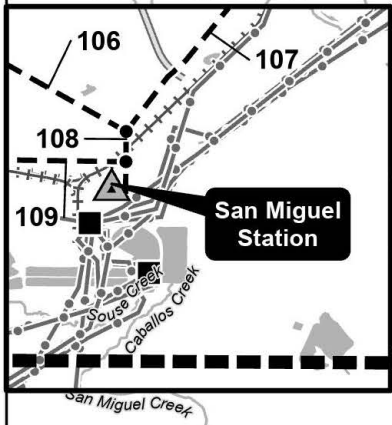
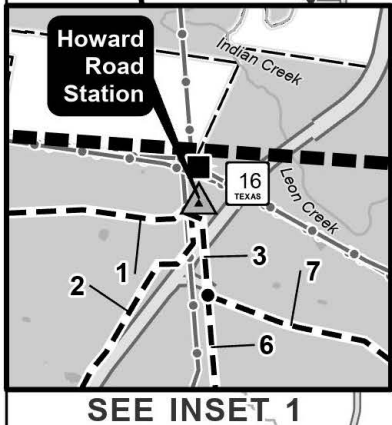
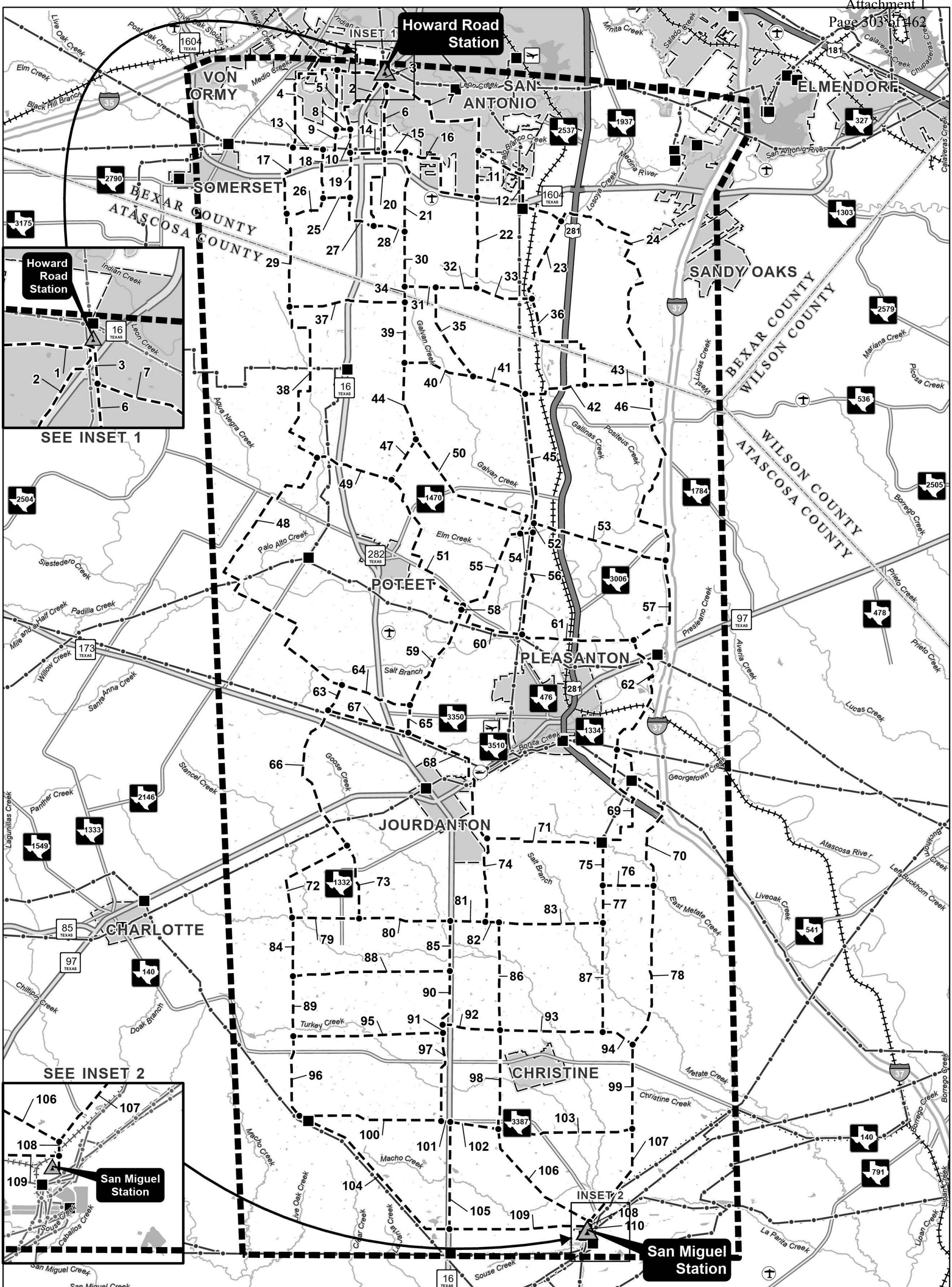
En este paquete se incluye un folleto que describe el proyecto propuesto y un mapa del área de estudio. También habrá información adicional disponible en www.cpsenergy.com/infrastructure. Avance hacia abajo hasta ver "Howard Road to San Miguel Project".

Esperamos conocerlo, recibir sus comentarios y responder a sus preguntas. Gracias de antemano por dedicarnos su tiempo.

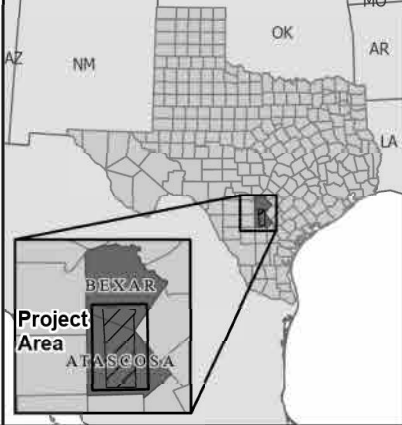
Atentamente,

Antonio DeMendonca
Director del Proyecto, CPS Energy
S&T Regulatory Support

Arthur H. (Holly) Gifford
Coordinador del Proyecto de Transmisión, STEC



- | | | |
|--|---------------------|------------|
| Study Area Boundary | Public Airport | Waterbody |
| Project Station | Private Airstrip | Stream |
| Preliminary Alternative Route Node, Segment, and Label | Heliport | City Limit |
| Existing Substation | Interstate Highway | |
| Existing Electrical Transmission Line | US Highway | |
| | State Highway | |
| | Farm-to-Market Road | |
| | Railroad | |



**HOWARD ROAD TO SAN MIGUEL
345-KV TRANSMISSION LINE
PROJECT**

**PRELIMINARY ALTERNATIVE
ROUTE SEGMENTS**

0 1 2 3 4 5
Miles

Date: 3/6/2024
000336

This page left blank intentionally.

Your feedback is important to us.

Please take a moment to respond to the following questions so we may evaluate public comments.

1. Which Howard Road to San Miguel Open House did you attend?
 April 2, 2024 April 4, 2024

2. Do you understand the need for the Howard Road to San Miguel Transmission Line Project?
 Strongly Agree Agree Neutral Disagree Strongly Disagree

3. If you attended the Open House or have reviewed the project information from the website, have your questions about the Howard Road to San Miguel Transmission Line Project been answered?
 Strongly Agree Agree Neutral Disagree Strongly Disagree

4. If you answered "Disagree" or "Strongly Disagree" to Question 3, and you still have questions about the project that have not been answered to your satisfaction, would you like for someone from the project team to contact you to discuss the project with you further?
 Yes No

5. Were the exhibits at the Open House helpful to you? If not, do you have suggestions for improvements?
 Strongly Agree Agree Neutral Disagree Strongly Disagree

Suggestions for Improvement:

6. Below is a list of factors that CPS Energy, STEC, and its consultants consider when identifying and evaluating alternative transmission line route segments. Please rank your top five factors below from most important (1) to least important (5).

- | | |
|--|---|
| <p>_____ Impact to residences</p> <p>_____ Proximity to schools, churches, cemeteries</p> <p>_____ Proximity to parks/recreational areas</p> <p>_____ Proximity to archaeological/historical site</p> <p>_____ Impact to woodlands/grasslands/wetland</p> <p>_____ Parallel existing roadways/highways</p> | <p>_____ Parallel existing transmission lines</p> <p>_____ Impact to businesses</p> <p>_____ Impact to streams/floodplains</p> <p>_____ Impact to trees and other vegetation</p> <p>_____ Visibility of structures</p> <p>_____ Parallel property lines</p> |
|--|---|

7. Are there any other factors that you feel should be considered when identifying and evaluating alternative transmission line segments? _____

8. Following your review of the Land Use and Environmental Constraints map at the Open House or from the project website, please indicate any features that should be added which were not identified in the appropriate location or that were not included on the map. _____

9. Please identify any alternative transmission line segments that are the most preferable to you.

Please describe why. _____

10. Please identify any alternative transmission line segments that are the least preferable to you.

Please describe why. _____

11. Please indicate all that apply:

A potential transmission segment or segments are near my home/business.

List segment(s): _____

A potential transmission segment or segments cross my property.

List segment(s): _____

Other. Please specify _____

12. Is there any other information you would like the Project Team to know, or take into consideration, when evaluating the project? _____

You may submit this form to the welcome table at the Open House, via mail or email to the following:

CPS Energy
Antonio DeMendonca
Mail Drop RT0801
500 McCullough
San Antonio, TX 78215

Email:
Howard-SanMiguelProject@cpsenergy.com

Please provide your name and contact information below.
(Optional)

Name: _____

Address: _____

City _____ State _____ Zip _____

Telephone: _____

Email: _____

Sus comentarios son importantes para nosotros.

Por favor, tome un momento para responder las siguientes preguntas para que podamos evaluar los comentarios del público.

1. ¿A qué reunión pública de Howard Road a San Miguel asistió?
2 de abril de 2024 4 de abril de 2024
2. ¿Comprende la necesidad del proyecto de línea de transmisión de Howard Road a San Miguel?
Totalmente de Acuerdo De Acuerdo Neutral En Desacuerdo Totalmente en Desacuerdo
3. Si asistió a la reunión pública o ha consultado la información sobre el proyecto en la página web, ¿se han respondido sus preguntas sobre el proyecto de línea de transmisión de Howard Road a San Miguel?
Totalmente de Acuerdo De Acuerdo Neutral En Desacuerdo Totalmente en Desacuerdo
4. Si ha respondido “en desacuerdo” o “totalmente en desacuerdo” a la pregunta 3, y aún tiene preguntas sobre el proyecto que no han sido respondidas a su satisfacción, ¿le gustaría que alguien del equipo del proyecto se pusiera en contacto con usted para discutir el proyecto con usted?
Sí No
5. ¿Le resultaron útiles las exposiciones de las reuniones públicas? Si no, ¿tiene alguna sugerencia de mejora?
Totalmente de Acuerdo De Acuerdo Neutral En Desacuerdo Totalmente en Desacuerdo

Sugerencias de Mejora:

6. Abajo hay una lista de factores que CPS Energy, STEC y sus consultores consideran al identificar y evaluar segmentos alternativos de rutas de líneas de transmisión. Por favor, clasifique sus cinco factores principales desde el más importante (1) al menos importante (5).

- | | |
|---|--|
| _____ Impacto sobre las residencias | _____ Líneas de transmisión paralelas existentes |
| _____ Proximidad a escuelas, iglesias y cementerios | _____ Impacto a los negocios |
| _____ Proximidad a parques/áreas recreativas | _____ Impacto en los ríos/llanuras inundables |
| _____ Proximidad al sitio arqueológico/histórico | _____ Impacto a los árboles y otra vegetación |
| _____ Impacto en los bosques/pastizales/humedales | _____ Visibilidad de las estructuras |
| _____ Carreteras/autopistas paralelas existentes | _____ Líneas de propiedad paralelas |

7. ¿Existen otros factores que, en su opinión, deban tenerse en cuenta a la hora de identificar y evaluar segmentos alternativos de líneas de transmisión? _____

8. Tras su revisión del mapa de Uso del Terreno y Limitaciones Medioambientales en la reunión pública o desde la página web del proyecto, por favor indique cualquier característica que deba añadirse que no se haya identificado en el lugar apropiado o que no se haya incluido en el mapa. _____

9. Por favor, Identifique los segmentos de línea de transmisión alternativos que considere más preferibles.

Por favor, describa por qué. _____

10. Por favor, identifique los segmentos de línea de transmisión alternativos que sean menos preferibles para usted. _____

11. Por favor, indique todo lo que corresponda:

Hay un segmento o segmentos de transmisión potenciales cerca de mi casa/negocio.

Enumere el segmento o segmentos: _____

Un segmento o segmentos potenciales de transmisión atraviesan mi propiedad.

Enumere el segmento o segmentos: _____

Otro. Por favor, especifique _____

12. ¿Hay alguna otra información que le gustaría que el equipo del proyecto conociera o tuviera en cuenta a la hora de evaluar el proyecto? _____

Puede presentar este formulario en la mesa de bienvenida en la reunión pública, por correo postal o electrónico a la siguiente dirección:

CPS Energy
Antonio DeMendonca
Buzón de Correo RT0801
500 McCullough
San Antonio, TX 78215

Correo Electrónico:
Howard-SanMiguelProject@cpsenergy.com

Indique a continuación su nombre e información de contacto.
(Opcional)

Nombre: _____

Dirección: _____

Ciudad _____ Estado _____ Código Postal _____

Teléfono: _____

Correo Electrónico: _____

Project Overview

What is the Howard Road to San Miguel Transmission Line Project? The Howard Road to San Miguel Transmission Line Project is a 345 kilovolt (kV), double circuit capable transmission line connecting the CPS Energy Howard Road Station located in the southwest San Antonio area with the South Texas Electric Cooperative, Inc. (STEC) San Miguel Station located near Christine, Texas in Atascosa County. This joint project between CPS Energy and STEC will be approximately 50 miles in length traversing parts of Bexar and Atascosa counties.

Why is a new transmission line needed in this area?

The new transmission line will increase the resiliency and reliability of Texas' electric grid by adding another electric transmission pathway between generation resources and the accelerating load growth south of San Antonio.

What is a transmission line?

The proposed transmission line consists of specially designed steel structures and wires that move electricity long distances at high voltages between station endpoints.

How does electricity get delivered to homes and businesses?

Typically, electricity is generated from remotely located electric power plants (including wind and solar farms) and then travels from those remote generating sources to substations closer to population centers through a system of high-voltage transmission lines. Once at a substation, the electricity is reduced to a voltage level that is appropriate for distribution to customers. Electricity then travels from the substation through the network of distribution lines, supplying electricity to homes and businesses.

When does construction begin?

Construction of the Howard Road to San Miguel Transmission Line Project is anticipated to begin first quarter of 2026.

Transmission Line Routes

Who selects the final transmission line route?

After determining the project is needed, the Public Utility Commission of Texas (PUC) utilizes an established regulatory process to evaluate and approve which route is to be constructed following its review of the data presented by the applicants in their application; recommendations from the PUC staff of experts; and the views and concerns of affected landowners and other interested parties.

After completion of the PUC process, the CPS Board of Trustees will review and approve the portion of the route inside the city of San Antonio.

Will landowners receive notice of the PUC proceeding?

Yes. All landowners who are crossed by a potential transmission line route, or who own a habitable structure within 500 feet of the centerline of a potential transmission line route, will be mailed a notice from the applicants that a joint application has been filed at the PUC requesting approval to construct and operate the project. Applicants will also publish notice of the Certificate of Convenience and Necessity (CCN) application filing in the newspaper and update the project website (see the end of this FAQ sheet for the website address for this project) announcing the filing of the application. The mailed notice packet will include the Docket Number used for tracking documents filed at the PUC along with forms for interested persons to provide public comment on the project or to participate in the PUC proceeding and other important information regarding the PUC regulatory process. If the PUC issues a final order approving the project and the route to be constructed, each landowner will receive a notice as to whether or not they are affected by the approved route.

Can landowners or other interested persons participate in the PUC proceeding?

Yes. Landowners or other persons impacted by a potential transmission line route may file a public comment regarding the project or request to participate in the PUC proceeding. A person participating in the PUC proceeding is generally referred to as an "intervenor" during the proceeding and must follow the specified responsibilities to maintain intervenor status throughout the regulatory process.

Environmental

Will it be necessary to remove trees and other vegetation to construct the project?

Yes, some removal of trees and other vegetation is often required to safely and reliably construct and operate transmission lines. CPS Energy and STEC will work with landowners and communities to responsibly comply with tree preservation requirements and minimize the impact where necessary to operate the transmission line infrastructure safely and reliably.

Will the project impact endangered species in the area?

CPS Energy and STEC will conduct studies set forth by the PUC's ordering decision to mitigate impact to endangered wildlife and plant species to the extent any such impacts are implicated by the construction of the project.

Infrastructure**What will the transmission line pole look like?**

CPS Energy and STEC anticipate using galvanized steel tubular monopole structures, although other types of structures may be used when the circumstances warrant.

Will the transmission lines create electric and magnetic fields (EMF) for people living nearby?

Transmission lines are designed to operate safely for people living, working, and recreating nearby and are not anticipated to result in any adverse EMF effects for people near them. For more information on EMF, please visit:

<https://www.niehs.nih.gov/health/topics/agents/emf>

Real Property**Will this new transmission line affect my property value?**

Appraisal studies tend to show that the presence of electric infrastructure do not substantially affect property values in an adverse way.

What rights do landowners have when a utility acquires the necessary transmission line right of way?

Landowners whose property will be crossed by the approved transmission line route, or from whom the land for the substation site will be acquired, have rights that are generally set out in The Texas Landowner Bill of Rights, published by the Attorney General of Texas. A copy may be found at <https://www.texasattorneygeneral.gov/sites/default/files/files/divisions/general-oag/landowners-bill-of-rights-2022.pdf>. Interested landowners are encouraged to review that document to become more familiar with their rights under the law. Affected landowners will receive a copy of The Texas Landowner Bill of Rights from the Applicants by US Mail before an easement is negotiated.

How will landowners along the chosen transmission route be affected?

CPS Energy and STEC will purchase a property right known as an easement for the length of the transmission line from existing property owners. In accordance with the terms of the easement, vegetation growing under the transmission line will be trimmed, and in some cases cleared to allow for the line construction. The easement document will also address issues such as roadways, fencing, access and notice rights, and other matters regarding CPS Energy and STEC's construction, operation, and maintenance of the transmission line facilities. The anticipated easement for this project is 150 foot wide, 75 feet on each side of the centerline.

How do CPS Energy or STEC arrive at values for property rights acquired from landowners?

CPS Energy and STEC evaluate property value using industry standard practices and offers landowners fair market value for property rights to be acquired.

Do CPS Energy and STEC have the power of "eminent domain" to acquire property rights?

Eminent domain authority is available to CPS Energy and STEC to acquire private property rights for public use. However, it is used as a last resort.

Next Steps**What happens after the Open House?**

CPS Energy and STEC's project team will evaluate all project information, including public input received. The project team will then meet to identify an adequate number of alternative transmission routes, including identification of which route best meet all applicable regulatory criteria. The project team will identify potential transmission line routes based on consideration of community values, recreational and park areas, historical and aesthetic values, environmental integrity, engineering, design, construction, operations and maintenance, and estimated cost.

When will CPS Energy and STEC file the CCN Application?

The anticipated date to file the CCN application is August 2024. Updates will be posted on the project webpage at cpsenergy.com/infrastructure (search Howard Road to San Miguel). Affected landowners will be notified when the application is filed.

Resumen del Proyecto

¿Qué es el proyecto de línea de transmisión de Howard Road a San Miguel? El proyecto de línea de transmisión de Howard Road a San Miguel es una línea de transmisión de 345 kilovoltios (kV), con capacidad de doble circuito, que conecta la estación de Howard Road de CPS Energy, situada en la zona suroeste de San Antonio, con la estación de San Miguel de South Texas Electric Cooperative, Inc. (STEC), situada cerca de Christine, Texas, en el condado de Atascosa. Este proyecto conjunto de CPS Energy y STEC tendrá una longitud aproximada de 80 km y atravesará parte de los condados de Bexar y Atascosa.

¿Por qué es necesaria una nueva línea de transmisión en esta área? La nueva línea de transmisión aumentará la resiliencia y fiabilidad de la red eléctrica de Texas al añadir otra vía de transmisión eléctrica entre los recursos de generación y el crecimiento acelerado de la carga al sur de San Antonio.

¿Qué es una línea de transmisión?

La línea de transmisión propuesta está formada por estructuras de acero y cables especialmente diseñados para transportar electricidad a grandes distancias y a altas tensiones entre estaciones.

¿Cómo llega la electricidad a los hogares y los negocios?

Normalmente, la electricidad se genera en plantas eléctricas situadas en lugares remotos (incluyendo parques eólicos y solares) y luego viaja desde esas fuentes de generación remotas hasta las subestaciones situadas más cerca de los centros de población a través de un sistema de alta tensión. Una vez en la subestación, la electricidad se reduce a un nivel de tensión adecuado para su distribución a los clientes. Luego, la electricidad viaja desde la subestación a través de la red de líneas de distribución, suministrando electricidad a hogares y negocios.

¿Cuándo comienza la construcción?

Se prevé que la construcción del proyecto de línea de transmisión de Howard Road a San Miguel comience en el primer trimestre de 2026.

Rutas de Líneas de Transmisión

¿Quién selecciona la ruta definitiva de la línea de transmisión?

Tras determinar que el proyecto es necesario, la Comisión de Servicios Públicos de Texas (PUC) utiliza un proceso regulatorio establecido para evaluar y aprobar la ruta que se va a construir tras revisar los datos presentados por los solicitantes en su solicitud, las recomendaciones del personal de expertos de la PUC y las opiniones e inquietudes de los propietarios afectados y otras partes interesadas.

Una vez finalizado el proceso de la PUC, la Junta Directiva de CPS revisará y aprobará la porción de la ruta dentro de la ciudad de San Antonio.

¿Recibirán los propietarios notificación del procedimiento de la PUC?

Sí. Todos los propietarios de terrenos atravesados por la ruta de una posible línea de transmisión, o que posean una estructura habitable a menos de 500 pies de la línea central de la ruta de una posible línea de transmisión, recibirán por correo una notificación de los solicitantes informándoles de que se ha presentado una solicitud conjunta ante la PUC solicitando la aprobación para construir y operar el proyecto. Los solicitantes también publicarán un aviso de la presentación de la solicitud de Certificado de Conveniencia y Necesidad (CCN) en el periódico y actualizarán la página web del proyecto (lea al final de esta hoja de FAQ la dirección de la página web para este proyecto) anunciando la presentación de la solicitud. El paquete de notificación enviado por correo incluirá el número de expediente utilizado para el seguimiento de los documentos presentados ante la PUC, junto con formularios para que las personas interesadas puedan hacer comentarios públicos sobre el proyecto o participar en el procedimiento de la PUC y otra información importante sobre el proceso regulador de la PUC. Si la PUC emite una orden final de aprobación del proyecto y de la ruta que se va a construir, cada propietario recibirá una notificación en la que se indicará si se ve afectado o no por la ruta aprobada.

¿Pueden los propietarios u otras personas interesadas participar en el procedimiento de la PUC?

Sí. Los propietarios de terrenos u otras personas afectadas por el trazado de una posible línea de transmisión pueden presentar un comentario público sobre el proyecto o solicitar participar en el procedimiento de la PUC. Una persona que participa en el procedimiento de la PUC generalmente se denomina "interviniente" durante el procedimiento y debe seguir las responsabilidades especificadas para mantener la condición de interviniente durante todo el proceso regulador.

Medio Ambiente

¿Será necesario eliminar árboles y otra vegetación para construir el proyecto?

Sí, a menudo es necesario eliminar algunos árboles y otra vegetación para construir y operar las líneas de transmisión de forma segura y fiable.

CPS Energy y STEC trabajarán con los propietarios de tierras y las comunidades para cumplir de forma responsable con los requisitos de preservación de árboles y minimizar el impacto cuando sea necesario para operar la infraestructura de la línea de transmisión de forma segura y fiable.

¿Impactará el proyecto a las especies en peligro de extinción en el área?

CPS Energy y STEC llevarán a cabo los estudios establecidos en la decisión de la PUC para mitigar el impacto sobre los animales salvajes y las plantas en peligro de extinción en la medida en que la construcción del proyecto afecte a tales especies.

Infraestructura

¿Qué aspecto tendrá el poste de la línea de transmisión?

CPS Energy y STEC prevén utilizar estructuras monoposte tubulares de acero galvanizado, aunque podrán utilizarse otros tipos de estructuras cuando las circunstancias lo justifiquen.

¿Crearán las líneas de transmisión campos eléctricos y magnéticos (CEM) para las personas que vivan cerca?

Las líneas de transmisión están diseñadas para funcionar de forma segura para las personas que viven, trabajan y recrean en las proximidades y no se prevé que provoquen ningún efecto CEM adverso para las personas que se encuentren cerca de ellas. Para más información sobre los CEM, visite: <https://www.niehs.nih.gov/health/topics/agents/emf>

Bienes Inmuebles

¿Afectará esta nueva línea de transmisión al valor de mi propiedad?

Los estudios de tasación tienden a demostrar que la presencia de infraestructuras eléctricas no afecta sustancialmente al valor de la propiedad de forma adversa.

¿Qué derechos tienen los propietarios de terrenos cuando una empresa de servicios públicos adquiere el derecho de paso necesario para la línea de transmisión?

Los propietarios cuyas propiedades vayan a ser atravesadas por la línea de transmisión aprobada, o a quienes se vaya a adquirir el terreno para el emplazamiento de la subestación, tienen los derechos establecidos en la Declaración de Derechos de los Propietarios de Texas (The Texas Landowner Bill of Rights), publicada por el Fiscal General de Texas. Se puede encontrar una copia en <https://texasattorneygeneral.gov/sites/default/files/files/divisions/general-oag/landowners-bill-of-rights-2022.pdf>. Se recomienda a los propietarios interesados que consulten este documento para conocer mejor los derechos que les otorga la ley. Los propietarios afectados recibirán de los solicitantes un ejemplar de la Declaración de Derechos del Propietario de Texas por correo postal antes de que se negocie una servidumbre.

Cómo se verán afectados los propietarios de terrenos a lo largo de la ruta de transmisión elegida?

CPS Energy y STEC comprarán a los propietarios existentes un derecho de propiedad conocido como servidumbre para la longitud de la línea de transmisión. De acuerdo con los términos de la servidumbre, se podará la vegetación que crezca bajo la línea de transmisión y, en algunos casos, se despejará para permitir la construcción de la línea. El documento de servidumbre también abordará cuestiones como las carreteras, el cercado, los derechos de acceso y notificación y otros asuntos relacionados con la construcción, el funcionamiento y el mantenimiento de las instalaciones de la línea de transmisión por parte de CPS Energy y STEC. La servidumbre prevista para este proyecto es de 150 pies de ancho, 75 pies a cada lado de la línea central.

¿Cómo obtienen CPS Energy o STEC el valor de los derechos de propiedad adquiridos a los propietarios?

CPS Energy y STEC evalúan el valor de la propiedad utilizando prácticas estándar del sector y ofrecen a los propietarios un valor justo de mercado por los derechos de propiedad que se adquieren.

¿Tienen CPS Energy y STEC el poder de “dominio eminente” para adquirir derechos de propiedad?

CPS Energy y STEC tienen autoridad de dominio eminente para adquirir derechos de propiedad privada para uso público. Sin embargo, se utiliza como último recurso.

Pasos Siguientes

¿Qué sucede después de la reunión pública?

El equipo del proyecto de CPS Energy y STEC evaluará toda la información del proyecto, incluyendo las opiniones públicas recibidas. Después, el equipo del proyecto se reunirá para identificar un número adecuado de rutas de transmisión alternativas, incluyendo la identificación de la ruta que mejor cumpla todos los criterios normativos aplicables. El equipo del proyecto identificará las posibles rutas de la línea de transmisión teniendo en cuenta los valores de la comunidad, las zonas recreativas y parques, los valores históricos y estéticos, la integridad del medio ambiente, la ingeniería, el diseño, la construcción, las operaciones y el mantenimiento, y el costo estimado.

¿Cuándo presentarán CPS Energy y STEC la solicitud de CCN?

La fecha prevista para presentar la solicitud de CCN es agosto de 2024. Las actualizaciones se publicarán en la página web del proyecto en cpsenergy.com/infrastructure (busque Howard Road to San Miguel). Se notificará a los propietarios afectados cuando se presente la solicitud.



HOWARD ROAD TO SAN MIGUEL TRANSMISSION LINE PROJECT

Who are CPS Energy and STEC?

Established in 1860, CPS Energy is the nation's largest community-owned provider of electric and natural gas services. We provide safe, reliable, and competitively priced services to **930,114** electric and **381,379** natural gas customers in San Antonio and portions of seven adjoining counties. Our customers' combined energy bills rank among the lowest of the nation's 20 largest cities while generating \$9 billion in revenue for the City of San Antonio over the last 80 years.

Our Vision 2027 strategic plan is designed to guide CPS Energy through rapid transformational change in our city. As a trusted and reliable community partner, we continuously focus on job creation, economic development, and educational investment. We are powered by our skilled workforce, whose commitment to the community is demonstrated through our employees' volunteerism, our community engagement efforts and programs aimed at bringing value and assistance to our customers.

South Texas Electric Cooperative (STEC)

STEC's mission is to provide the infrastructure and services to deliver reliable and economical electric power to its diversified membership. As a cutting-edge Generation and Transmission Cooperative STEC leads by providing a diverse portfolio of affordable energy from a variety of energy sources, including wind, solar, lignite, natural gas, diesel fuel, and hydroelectric. STEC was established in 1944 to provide wholesale transmission and generation services to its Member distribution cooperatives. Through 2,278 miles of transmission lines and 220 substations, STEC serves its nine distribution cooperatives which in turn serve 346,000 memberowners in forty-seven South Texas counties. For more information about STEC, please visit stec.org.

How can you follow the progress of this project?

The CPS Energy project team will post project information on the CPS Energy website at cpsenergy.com/infrastructure.

Who can answer your questions?

The website will include regular updates on the project as steps are completed.

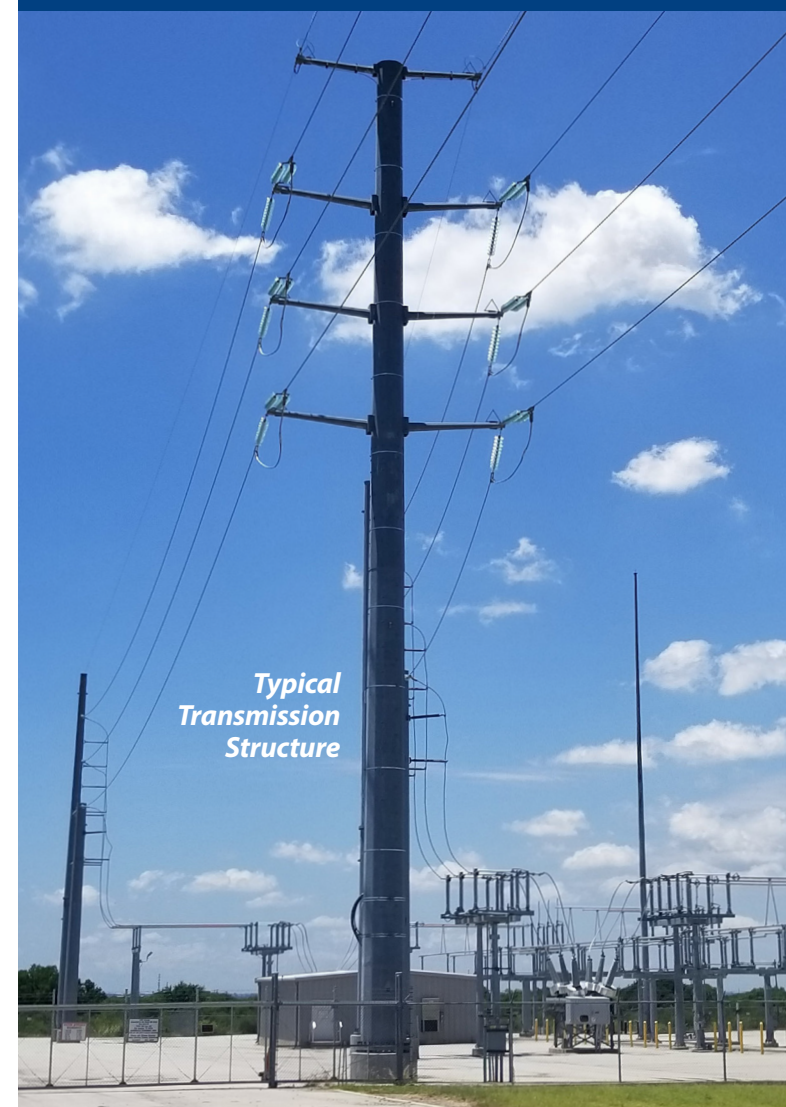
Also, you may write, call or email to:

CPS Energy

Antonio Demendonca, Project Manager
Howard Road to San Miguel
Transmission Line Project
Mail Code RT0801
500 McCullough Ave.
San Antonio, Texas 78215
(210) 353-2018
Howard-SanMiguelProject@cpsenergy.com

STEC

Arthur H. (Holly) Gifford
Transmission Project Coordinator
P.O. Box 119
Nursery, Texas 77976
(361) 485-6134



Typical Transmission Structure

INFORMATION ABOUT THE HOWARD ROAD TO SAN MIGUEL TRANSMISSION LINE PROJECT

What is the Howard Road to San Miguel Transmission Line Project?

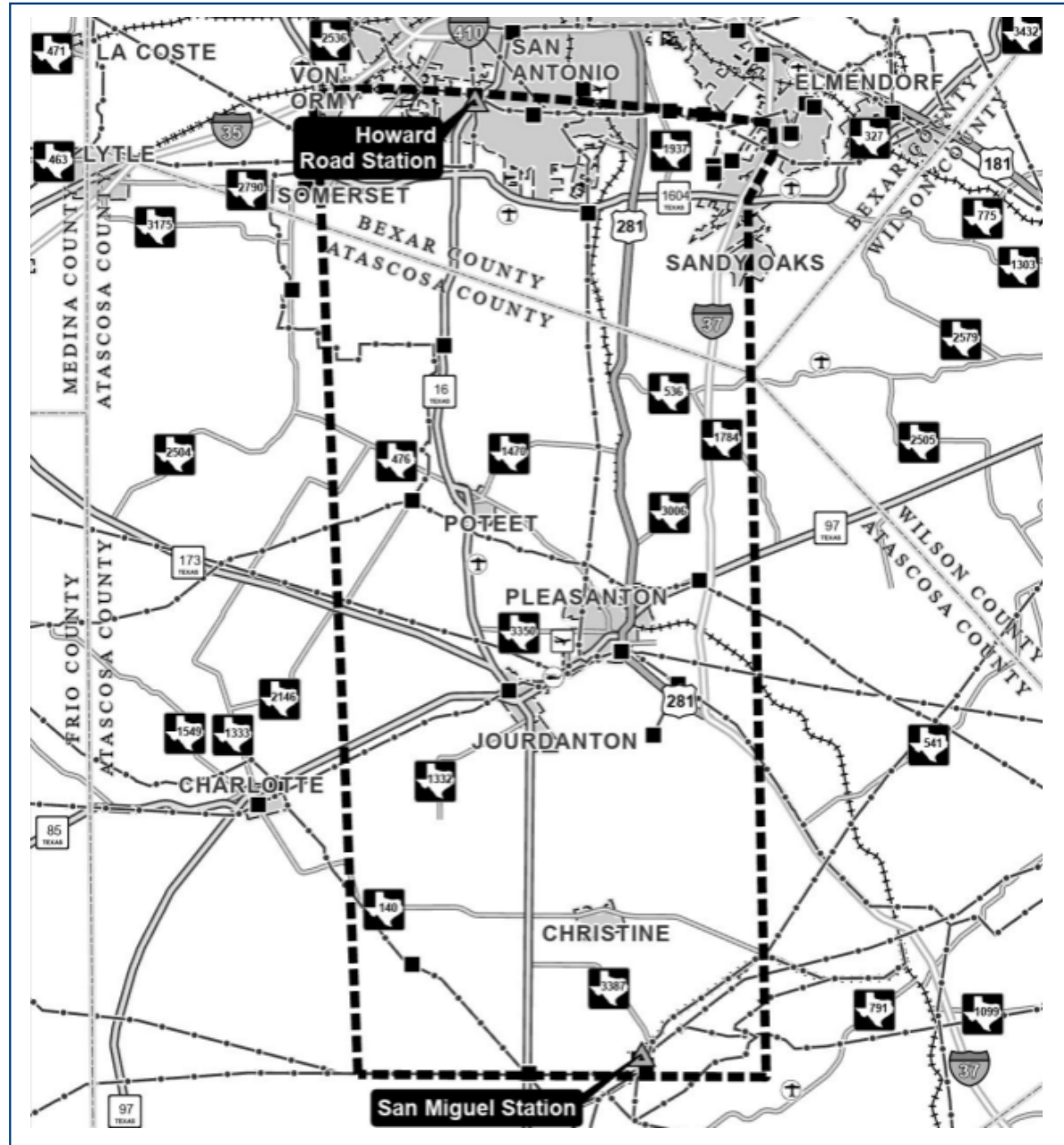
CPS Energy and South Texas Electric Cooperative (STEC) are proposing to construct approximately 50 miles of new transmission infrastructure extending from Bexar County to Atascosa County. Transmission lines consist of specially designed structures composed of various material (wood, concrete, steel, etc.) and wires that move electricity long distances at high voltages from station to station.

How might this project affect you?

CPS Energy and STEC are evaluating multiple geographically diverse transmission line options for the project. Your input and feedback are important to our evaluation of alternatives.

Why is this project needed?

The new transmission line will increase the resiliency and reliability of Texas' electric grid by adding another transmission pathway while also adding support to the accelerating load growth south of San Antonio.



Study Area Map



¿Quiénes son CPS Energy y STEC?

Fundada en 1860, CPS Energy es el proveedor comunitario de servicios de electricidad y gas natural más grande del país. Brindamos servicios seguros, fiables y a precios competitivos a **930,114** clientes de electricidad y **381,379** de gas natural en San Antonio y partes de siete condados adyacentes. Las facturas de energía combinadas de nuestros clientes se encuentran entre las más bajas de las 20 ciudades más grandes del país y generaron \$9 mil millones en ingresos para la Ciudad de San Antonio durante los últimos 80 años.

Nuestro plan estratégico Visión 2027 está diseñado para guiar a CPS Energy a través de un rápido cambio transformacional en nuestra ciudad. Como socio comunitario fiable y de confianza nos centramos continuamente en la creación de empleo, el desarrollo económico y la inversión en educación. Somos impulsados por nuestra fuerza laboral calificada, cuyo compromiso con la comunidad se demuestra a través del voluntariado de nuestros empleados, nuestros esfuerzos y programas de participación comunitaria destinados a aportar valor y asistencia a nuestros clientes.

South Texas Electric Cooperative (STEC)

La misión de STEC es proporcionar la infraestructura y los servicios para ofrecer energía eléctrica fiable y económica a sus diversos miembros. Como cooperativa de generación y transmisión, STEC proporciona una cartera diversa de energía económica a partir de una variedad de fuentes de energía, incluyendo la eólica, solar, lignito, gas natural, diésel e hidroeléctrica. STEC se fundó en 1944 para proporcionar servicios de transmisión y generación a sus cooperativas de distribución asociadas. A través de 2,278 millas de líneas de transmisión y 220 subestaciones, STEC atiende a sus nueve subestaciones cooperativas de distribución que, a la vez, prestan servicio a 346,000 en cuarenta y siete condados del sur de Texas. Para más información sobre STEC, visite stec.org.

¿Cómo puede seguir el progreso de este proyecto?

El equipo del proyecto CPS Energy publicará información sobre el proyecto en el sitio web de CPS Energy cpsenergy.com/infrastructure.

¿Quién puede responder sus preguntas?

El sitio web incluirá actualizaciones periódicas del proyecto a medida que se vayan completando los pasos. También puede escribir, llamar o enviar un correo electrónico a:

CPS Energy

Antonio Demendonca, Director del Proyecto
Howard Road a San Miguel
Proyecto de Línea de Transmisión
Código postal RT0801
500 McCullough Ave.
San Antonio, Texas 78215
(210) 353-2018
Howard-SanMiguelProject@cpsenergy.com

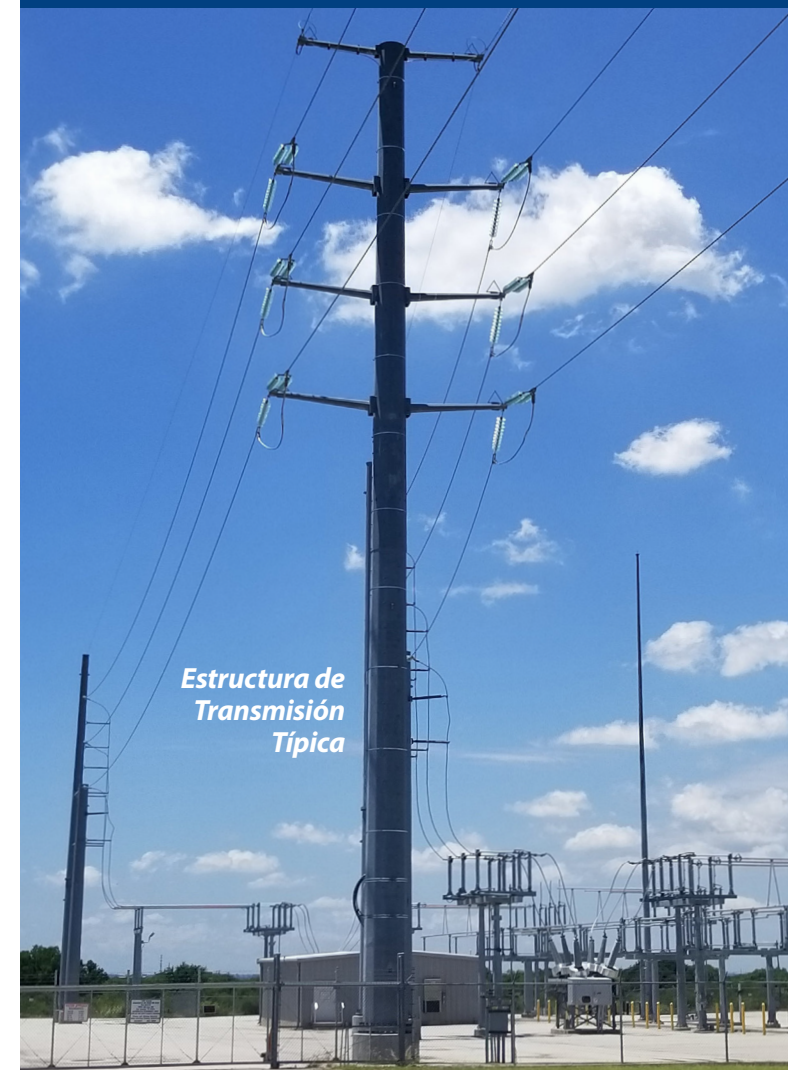
STEC

Arthur H. (Holly) Gifford
Coordinador del Proyecto de Transmisión
P.O. Box 119
Nursery, Texas 77976
(361) 485-6134



HOWARD ROAD A SAN MIGUEL

PROYECTO DE LÍNEA DE TRANSMISIÓN



*Estructura de
Transmisión
Típica*

INFORMACIÓN SOBRE EL PROYECTO DE LÍNEA DE TRANSMISIÓN DE HOWARD ROAD A SAN MIGUEL

¿Qué es el Proyecto de Línea de Transmisión de Howard Road a San Miguel?

CPS Energy y South Texas Electric Cooperative (STEC) proponen la construcción de aproximadamente 50 millas de nueva infraestructura de transmisión desde el condado de Bexar hasta el condado de Atascosa. Las líneas de transmisión consisten en estructuras especialmente diseñadas compuestas de diversos materiales (madera, concreto, acero, etc.) y cables que transportan electricidad a largas distancias a altos voltajes de una estación a otra.

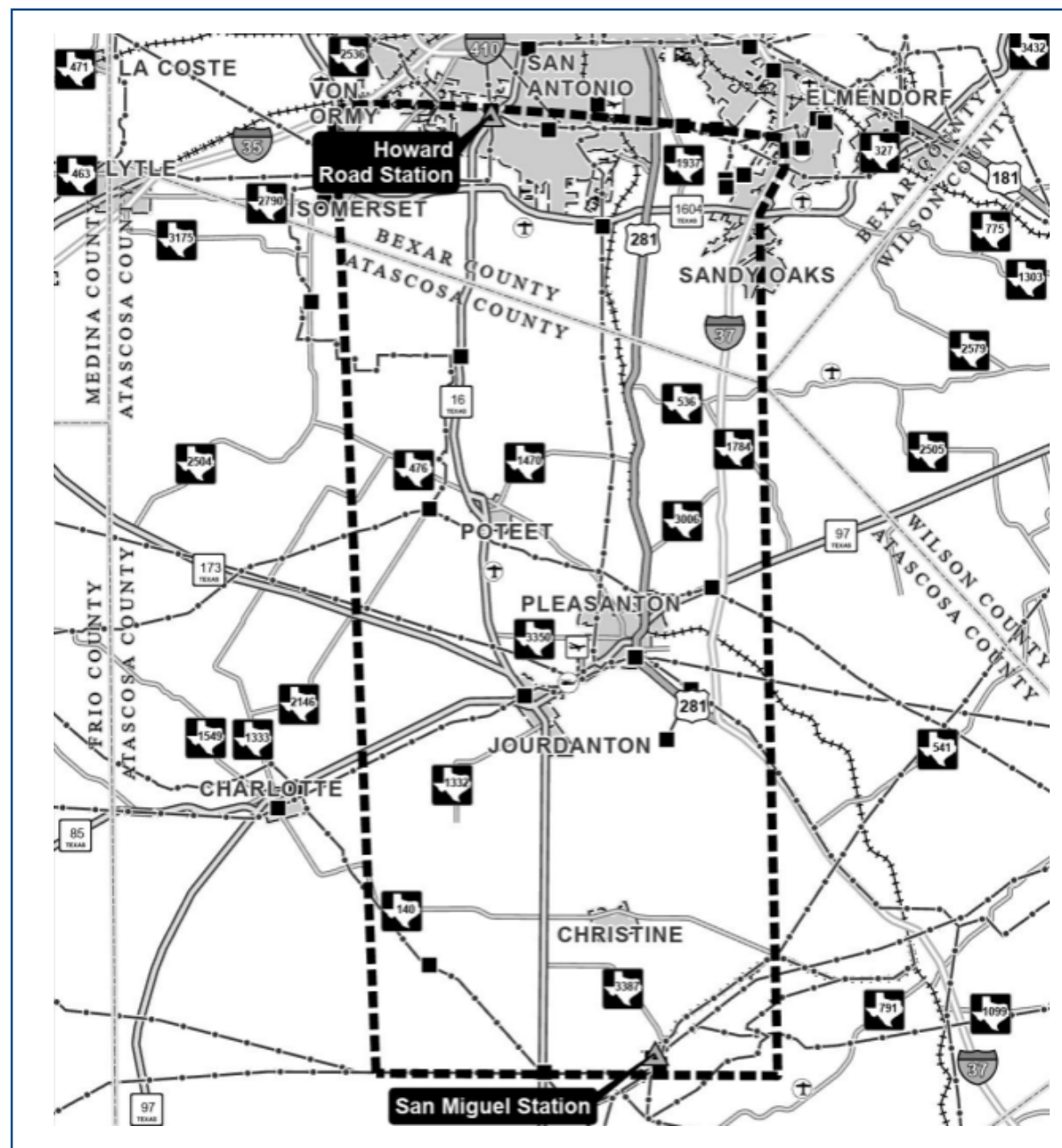
¿Cómo puede afectar este proyecto?

CPS Energy y STEC están evaluando múltiples opciones de líneas de transmisión geográficamente diversas para el proyecto. Su opinión y comentarios son importantes para nuestra evaluación de alternativas.

¿Por qué se necesita este proyecto?

La nueva línea de transmisión aumentará la resiliencia y confiabilidad de la red eléctrica de Texas al agregar otra vía de transmisión y al mismo tiempo añade apoyo al acelerado crecimiento de la carga al sur de San Antonio.

Mapa del Área de Estudio



INTRODUCTION

CPS ENERGY & SOUTH TEXAS ELECTRIC COOPERATIVE (STEC)



CPS ENERGY

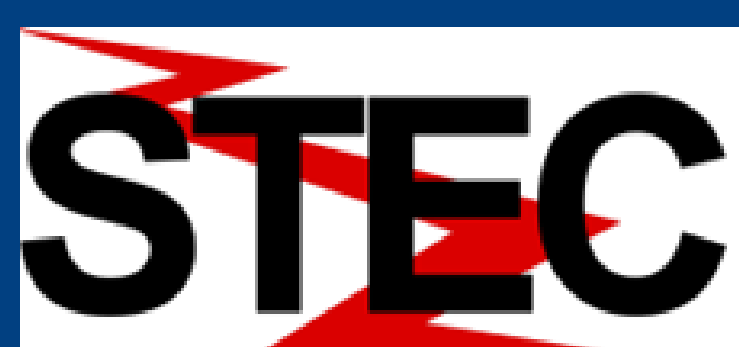
Established in 1860, CPS Energy is the nation's largest community-owned, natural gas and electric company, providing safe, reliable, and competitively priced service to 907,520 electric and 373,990 natural gas customers in San Antonio and portions of seven adjoining counties. We are among the top public power wind energy buyers in the nation and number one in Texas for solar generation.

For more information, visit cpsenergy.com.

South Texas Electric Cooperative (STEC)

STEC's mission is to provide the infrastructure and services to deliver reliable and economical electric power to its diversified membership. As a cutting-edge Generation and Transmission Cooperative, STEC leads by providing a diverse portfolio of affordable energy from a variety of energy sources, including wind, solar, lignite, natural gas, diesel fuel, and hydroelectric. STEC was established in 1944 to provide wholesale transmission and generation services to its member distribution cooperatives. Through 2,278 miles of transmission lines and 220 substations, STEC serves its nine distribution cooperatives which in turn serve 346,000 member-owners in forty-seven South Texas counties.

For more information about STEC, please visit stec.org.



PURPOSE, NEED & SCOPE



The Electric Reliability Council of Texas (ERCOT) Board of Directors endorsed the project as critical to the reliability of the ERCOT System on August 31, 2023

PURPOSE & NEED:

The project purpose and need is based on the following factors:

- Increasing customer load growth in Central Texas and,
- Increasing renewable generation in South Texas

SCOPE:

CPS Energy and South Texas Electric Cooperative (STEC) propose to construct approximately 50 miles of transmission infrastructure connecting the CPS Energy Howard Road Station in Bexar County to the STEC San Miguel Station in Atascosa County



GENERATION TO CUSTOMER DIAGRAM



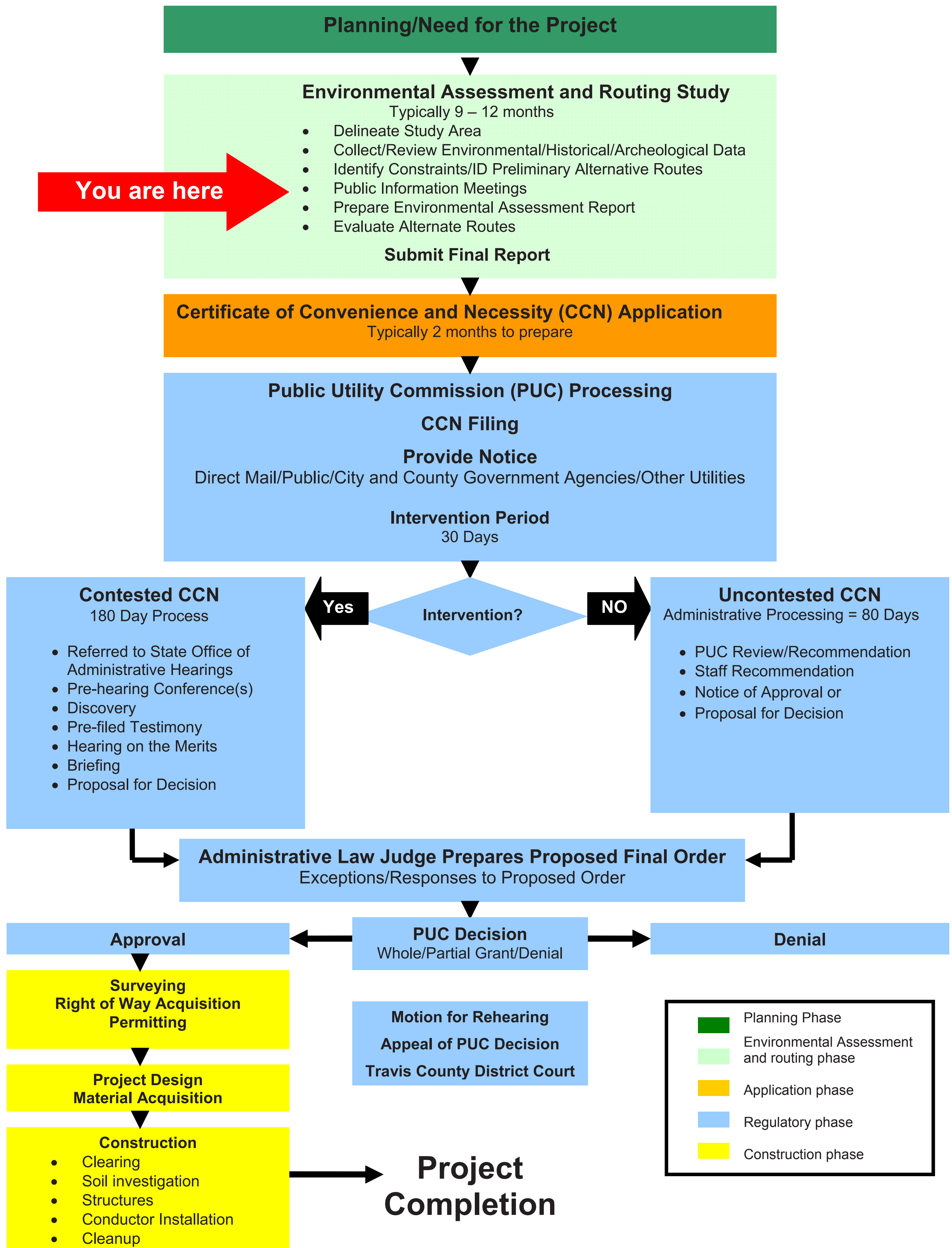
ELECTRIC GENERATION AND DISTRIBUTION



CCN PROCESS



Licensing Process for New Transmission Facilities



CPS ENERGY BOARD APPROVAL PROCESS

(FOR PORTION OF THE APPROVED ROUTE TO BE CONSTRUCTED BY CPS ENERGY)



CPS ENERGY BOARD OF TRUSTEES DECISION

- CPS Energy Board of Trustees approves portions of route within San Antonio municipal boundaries.
- After the Public Utility Commission (PUC) approval, the project team will provide the information utilized in the PUC process to the CPS Energy Board of Trustees along with the decisions and recommendations given by the PUC regarding the project need and routing
- The CPS Energy Board of Trustees will hear public input and identify the transmission route to be constructed within the San Antonio municipal boundaries



ANTICIPATED TIMELINE



Gather information and land use data

In progress

Send letters to landowners

March 2024 - Complete

Hold Open Houses

April 2024

Complete Environmental Analysis and
Routing Assessment

Estimated July 2024

Present project update to
CPS Energy Board of Trustees

Estimated July 2024

Submit CCN application to
The Public Utility Commission of Texas (PUC) and notify
directly affected landowners and required entities

Estimated August 2024

Receive Ruling from the PUC regarding project need
and selected route outside of San Antonio

Estimated February 2025

Receive CPS Energy Board of Trustees approval
and selected route inside of San Antonio

Estimated May 2025

Start construction

Estimated January 2026

Complete construction

Estimated May 2027



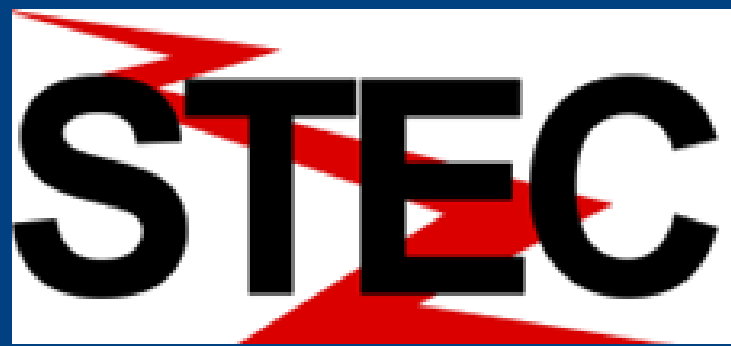
TRANSMISSION FACTS



- Typical 345kV Monopole Heights are 145'-150', but could be as high as 170' depending on terrain and span length
- Typical 345kV Span Lengths are 800'-1200' depending on route variables
- Typical 345kV Pole Foundation Diameter is 10'-12'



TYPICAL 345kV TRANSMISSION POLES



STAGES OF CONSTRUCTION



Easement is cleared enough to access pole locations

Foundation-reinforcing cage is assembled

Foundation is drilled and poured

Transmission structure is installed

Conductors are pulled into place

Right-of-way is cleaned up



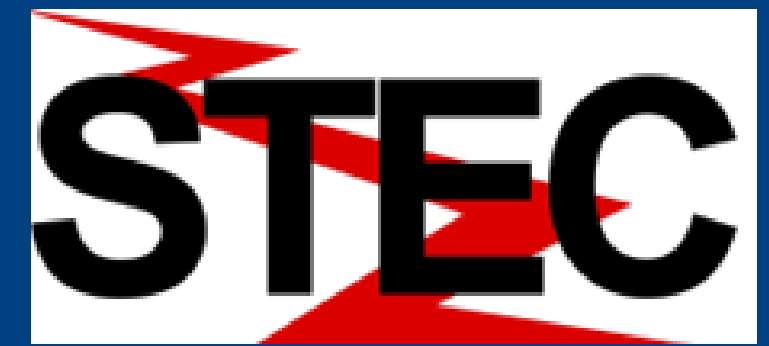
TYPICAL TRANSMISSION EASEMENTS



Clearing around transmission poles



Clearing along route



ACQUISITION ELEMENTS



- Mail “Bill of Rights” letter to affected landowners
- Contact property owner
- Obtain permission to conduct survey(s)
- Survey establishes boundaries of easement (Simultaneously perform environmental/ cultural surveys)
- Easement area is defined/described by a Registered Professional Land Surveyor
- Value of Easement established by an independent appraiser
- Negotiate with property owner for Easement or right-of-way for utility use



RIGHT-OF-WAY TERMS TO KNOW



EASEMENT:

A right that one party acquires in another party's land.

SURVEY:

The measurement of the boundaries of a parcel of land, its area, and sometimes its topography.

APPRAISAL:

The act or process of developing an opinion of value; an opinion of value.

NEGOTIATION:

The process by which two or more parties resolve differences to reach a mutually acceptable agreement.

EMINENT DOMAIN:

A governmental right to acquire private property for public use by condemnation, and the payment of just compensation.

FAIR MARKET VALUE:

The price that would be negotiated between a willing seller and a willing buyer in a reasonable time, usually arrived at by comparable sales in the same area.

STATE OF TEXAS LANDOWNER BILL OF RIGHTS:

Property owner rights that apply to any attempt by the government or a private entity to take your property, as prescribed in Texas Government Code Sec. 402.031 and Chapter 21 of the Texas Property Code.



LAND USE & ENVIRONMENTAL EVALUATION CRITERIA



TABLE 2-2 LAND USE AND ENVIRONMENTAL EVALUATION CRITERIA

EVALUATION CRITERIA

Land Use

- 1 Length of alternative route (miles)
- 2 Number of habitable structures¹ within 500 feet of the route centerline
- 3 Length of ROW using existing transmission line ROW
- 4 Length of ROW parallel and adjacent to existing transmission line ROW
- 5 Length of ROW parallel and adjacent to other existing ROW (roadways)
- 6 Length of ROW parallel and adjacent to apparent property lines² (or other natural or cultural features, etc.)
- 7 Sum of evaluation criteria 4, 5, and 6
- 8 Percent of evaluation criteria 4, 5, and 6
- 9 Length of ROW across parks/recreational areas³
- 10 Number of additional parks/recreational areas³ within 1,000 feet of ROW centerline
- 11 Length of ROW across cropland
- 12 Length of ROW across pasture/rangeland
- 13 Length of ROW across land irrigated by traveling systems (rolling or pivot type)
- 14 Length of route across conservation easements and/or mitigation banks (Special Management Area)
- 15 Length of route across gravel pits, mines, or quarries
- 16 Length of ROW parallel and adjacent to pipelines⁴
- 17 Number of pipeline crossings⁴
- 18 Number of transmission line crossings
- 19 Number of IH, US and state highway crossings
- 20 Number of FM or RM road crossings
- 21 Number of FAA registered public/military airports⁵ with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline
- 22 Number of FAA registered public/military airports⁵ having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline
- 23 Number of private airstrips within 10,000 feet of the ROW centerline
- 24 Number of heliports within 5,000 feet of the ROW centerline
- 25 Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline
- 26 Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline
- 27 Number of identifiable existing water wells within 200 feet of the ROW centerline
- 28 Number of oil and gas wells within 200 feet of the ROW centerline (including dry or plugged wells)

Aesthetics

- 29 Estimated length of ROW within foreground visual zone⁶ of IH, US and state highways
- 30 Estimated length of ROW within foreground visual zone⁶ of FM/RM roads
- 31 Estimated length of ROW within foreground visual zone⁶[⁷] of parks/recreational areas³

Ecology

- 32 Length of ROW through upland woodlands/brushlands
- 33 Length of ROW through bottomland/riparian woodlands
- 34 Length of ROW across National Wetlands Institute (NWI) mapped wetlands
- 35 Length of ROW across critical habitat of federally listed endangered or threatened species
- 36 Length of ROW across open water (lakes, ponds)
- 37 Number of stream and river crossings
- 38 Length of ROW parallel (within 100 feet) to streams or rivers
- 39 Length of ROW across Edwards Aquifer Contributing Zone
- 40 Length of ROW across FEMA mapped 100-year floodplain

Cultural Resources

- 41 Number of cemeteries within 1,000 feet of the ROW centerline
- 42 Number of recorded cultural resource sites crossed by ROW
- 43 Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline
- 44 Number of National Register of Historic Properties (NRHP) listed properties crossed by ROW
- 45 Number of additional NRHP listed properties within 1,000 feet of ROW centerline
- 46 Length of ROW across areas of high archeological site potential

Notes: All length measurements are shown in miles unless noted otherwise.

¹ Single-family and multi-family dwellings, and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 500 feet of the centerline of a transmission project of 230 kV or more.

² Apparent property boundaries created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to apparent property boundaries criteria.

³ Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the project.

⁴ Only steel pipelines six inches and greater in diameter carrying petrochemicals were quantified in the pipeline crossing and paralleling calculations.

⁵ As listed in the Chart Supplement South Central US (FAA 2023b formerly known as the Airport/Facility Directory South Central US) and FAA 2023a.

⁶ One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of interstates, US and state highway criteria are not "double-counted" in the length of ROW within the visual foreground zone of FM roads criteria.

⁷ One-half mile, unobstructed. Lengths of ROW within the visual foreground zone of parks/recreational areas may overlap with the total length of ROW within the visual foreground zone of interstates, US and state highway criteria and/or with the total length of ROW within the visual foreground zone of FM roads criteria.



LOCAL, STATE & FEDERAL AGENCIES CONTACTED/NOTIFIED



FEDERAL

Federal Aviation Administration
Federal Emergency Management Agency
National Parks Service
National Resource Conservation Service (NRCS) Texas State Office
U.S. Army Corps of Engineers – Fort Worth District
U. S. Department of Defense Military Aviation and Installation Assurance Siting Clearinghouse
U.S. Environmental Protection Agency
U.S. Fish Wildlife Service

STATE

U.S. Congressman
Texas State Senators
Texas House Representatives
Railroad Commission of Texas
Texas Commission on Environmental Quality
Texas Department of Transportation
Texas General Land Office
Texas Historical Commission
Texas Parks and Wildlife Department
Texas Water Development Board

LOCAL

City of San Antonio - Economic Development Department
City of San Antonio - Department of Planning
City of San Antonio - Transportation
City of San Antonio Office of Historic Preservation Development and Business Services Center
City of San Antonio - Mayor
City of San Antonio - Council
Alamo Area Council of Governments
Alamo Soil and Water Conservation District
San Antonio World Heritage Office
San Antonio Water System
Edwards Aquifer Authority Chairman
San Antonio River Authority
Atascosa County Judge
Atascosa County Commissioners
Atascosa County Historical Commission
Jourdanton Independent School District
Pleasanton Independent School District
Charlotte ISD
Poteet ISD
Bexar County Judge
Bexar County Commissioners
Bexar County Economic Development
Bexar County Flood Control
Bexar County Historical Commission
Bexar County Manager
East Central ISD
Somerset ISD
Southside ISD
Southwest ISD

SUBURBAN CITIES

City of Poteet - Mayor
City of Poteet - City Administrator
City of Christine - Mayor
City of Jourdanton - Mayor
City of Jourdanton - City Secretary
City of Pleasanton - Mayor
City of Pleasanton - City Manger
City of Pleasanton- City Engineer
City of Sandy Oaks - Mayor
City of Somerset - Mayor

NON-GOVERNMENTAL ORGANIZATION

The Nature Conservancy
Texas Land Trust Council
Texas Land Conservancy
Texas Agricultural Land Trust
Texas Cave Management Association



ENVIRONMENTAL ASSESSMENT



- An Environmental Assessment is prepared to address land use, visual resources, socioeconomic elements, biological/ecological resources, geology and soils, hydrology, and cultural resources within the regional study area and along the alternative routes
- POWER professionals with expertise in different environmental disciplines (wildlife biology, plant ecology, land use/planning, and archaeology) evaluate the primary alternative routes based upon environmental and land use conditions present along each primary alternative route, augmented by aerial photograph interpretation and field surveys, where possible, and the general routing methodology used by POWER and environmental criteria

This page left blank intentionally.

Appendix C

Habitable Structures and Other Land Use Features in the Vicinity of the Primary Alternative Routes

This page left blank intentionally.

Table 4-8 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route A

Segment Combinations: 1-5-8-10-19-27-28-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
1	Commercial	460	1
2	Commercial	394	1
3	Commercial	310	1
4	Commercial	136	1
5	Commercial	174	1
6	Commercial	172	1
7	Commercial	303	1
8	Commercial	379	1
9	Single Family Residence	276	1
10	Single Family Residence	354	1
11	Single Family Residence	418	1
12	Single Family Residence	484	1
13	Single Family Residence	441	1
14	Single Family Residence	325	1
15	Single Family Residence	377	1
16	Single Family Residence	434	1
17	Single Family Residence	505	1
18	Single Family Residence	327	1
19	Single Family Residence	445	1
20	Single Family Residence	476	5
21	Single Family Residence	337	5
22	Single Family Residence	254	5
32	Single Family Residence	373	5
33	Single Family Residence	356	5
34	Single Family Residence	337	5
44	Single Family Residence	462	5
45	Single Family Residence	155	5
46	Commercial	318	5
47	Single Family Residence	491	5
70	Single Family Residence	301	8
71	Single Family Residence	300	8
72	Single Family Residence	199	8
73	Single Family Residence	311	8
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19

Table 4-8 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route A

Segment Combinations: 1-5-8-10-19-27-28-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	307	27
298	Single Family Residence	328	27
299	Single Family Residence	441	27
317	School	317	27
318	Single Family Residence	211	27
319	Single Family Residence	308	27
320	Single Family Residence	319	27
321	Single Family Residence	473	27
322	Single Family Residence	299	27
323	Single Family Residence	290	27
324	Single Family Residence	336	27
325	Single Family Residence	335	27
326	Single Family Residence	382	28
327	Single Family Residence	411	28
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51

Table 4-8 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route A

Segment Combinations: 1-5-8-10-19-27-28-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
591	Single Family Residence	504	51
592	Single Family Residence	339	51
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98

Table 4-8 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route A

Segment Combinations: 1-5-8-10-19-27-28-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
739	Single Family Residence	381	98
2001	Cannon Field Airstrip	6,391	30
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX529	805	--
5002	First Memorial Cemetery	831	27
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5008	Jourdanton City Cemetery	727	68B
--	41BX1702	751	--
--	41BX2464	730	--
--	41BX2528	693	--
--	41BX527	748	--
--	41BX528	659	--
--	41BX554	84	--
--	41BX850	846	--
--	41BX862	959	--
--	41BX863	0	--
--	41BX864	165	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX680	53	--
--	41BX848	982	--
--	41BX553	3	--
6001	Theodore Heermann Barn and Ruins	481	5

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-9 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route B

Segment Combinations: 1-5-9-18-26-29-38-48-63-66-72-84-89-95-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
1	Commercial	460	1
2	Commercial	394	1
3	Commercial	310	1
4	Commercial	136	1
5	Commercial	174	1
6	Commercial	172	1
7	Commercial	303	1
8	Commercial	379	1
9	Single Family Residence	276	1
10	Single Family Residence	354	1
11	Single Family Residence	418	1
12	Single Family Residence	484	1
13	Single Family Residence	441	1
14	Single Family Residence	325	1
15	Single Family Residence	377	1
16	Single Family Residence	434	1
17	Single Family Residence	505	1
18	Single Family Residence	327	1
19	Single Family Residence	445	1
20	Single Family Residence	476	5
21	Single Family Residence	337	5
22	Single Family Residence	254	5
32	Single Family Residence	373	5
33	Single Family Residence	356	5
34	Single Family Residence	337	5
44	Single Family Residence	462	5
45	Single Family Residence	155	5
46	Commercial	318	5
47	Single Family Residence	491	5
70	Single Family Residence	224	9
71	Single Family Residence	359	9
75	Single Family Residence	249	9
76	Single Family Residence	341	9
77	Single Family Residence	380	9
110	Single Family Residence	366	18
111	Single Family Residence	108	18
112	Single Family Residence	239	18
113	Single Family Residence	431	18
114	Single Family Residence	451	18

Table 4-9 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route B

Segment Combinations: 1-5-9-18-26-29-38-48-63-66-72-84-89-95-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
115	Single Family Residence	308	18
116	Single Family Residence	151	18
117	Single Family Residence	306	18
118	Single Family Residence	216	18
119	Single Family Residence	298	18
120	Single Family Residence	205	18
121	Single Family Residence	417	18
122	Single Family Residence	397	18
123	Single Family Residence	397	18
124	Single Family Residence	377	18
125	Single Family Residence	272	18
126	Single Family Residence	399	18
127	Single Family Residence	463	18
128	Single Family Residence	427	18
129	Single Family Residence	486	18
130	Single Family Residence	181	18
131	Single Family Residence	194	18
132	Single Family Residence	156	18
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38

Table 4-9 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route B

Segment Combinations: 1-5-9-18-26-29-38-48-63-66-72-84-89-95-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48
581	Single Family Residence	467	48

Table 4-9 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route B

Segment Combinations: 1-5-9-18-26-29-38-48-63-66-72-84-89-95-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
642	Single Family Residence	442	66
643	Single Family Residence	111	66
673	Single Family Residence	405	72
674	Single Family Residence	167	72
675	Single Family Residence	360	72
676	Single Family Residence	225	72
677	Single Family Residence	255	72
678	Single Family Residence	280	72
679	Single Family Residence	191	72
680	Single Family Residence	189	72
681	Single Family Residence	492	72
682	Single Family Residence	492	72
683	Single Family Residence	424	72
684	Single Family Residence	455	72
724	Single Family Residence	283	95
725	Single Family Residence	327	95
726	Single Family Residence	213	95
727	Single Family Residence	277	95
728	Single Family Residence	223	95
729	Single Family Residence	195	95
730	Single Family Residence	289	97
731	Single Family Residence	407	97
732	Single Family Residence	351	97
3003	Other Electronic Installation	1,027	18
3018	Other Electronic Installation	1,722	110
--	41BX529	805	--
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2528	693	--
--	41BX527	748	--
--	41BX528	659	--
--	41BX554	84	--
--	41BX850	30	--
--	41BX851	881	--
--	41BX853	968	--
--	41BX862	959	--
--	41BX863	0	--
--	41BX864	165	--
--	41AT34	452	--

Table 4-9 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route B

Segment Combinations: 1-5-9-18-26-29-38-48-63-66-72-84-89-95-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX680	53	--
--	41BX849	116	--
--	41BX852	528	--
--	41BX552	808	--
--	41BX553	3	--
6001	Theodore Heermann Barn and Ruins	481	5

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-10 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route C

Segment Combinations: 2-10-19-25-26-29-37-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
131	Single Family Residence	201	26
132	Single Family Residence	177	26
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19

Table 4-10 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route C

Segment Combinations: 2-10-19-25-26-29-37-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	354	19
298	Single Family Residence	467	19
300	Single Family Residence	249	25
301	Single Family Residence	219	25
302	Single Family Residence	470	25
303	Single Family Residence	231	25
304	Single Family Residence	236	25
305	Single Family Residence	468	25
306	Single Family Residence	233	25
307	Single Family Residence	412	25
308	Single Family Residence	164	25
309	Single Family Residence	220	25
310	Single Family Residence	299	25
311	Single Family Residence	395	25
312	Single Family Residence	426	25
313	Single Family Residence	303	25
314	Single Family Residence	397	25
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
438	Single Family Residence	315	37
439	Single Family Residence	146	37
440	Single Family Residence	436	37
441	Single Family Residence	174	37
442	Single Family Residence	162	37
443	Single Family Residence	460	37
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51

Table 4-10 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route C

Segment Combinations: 2-10-19-25-26-29-37-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
591	Single Family Residence	504	51
592	Single Family Residence	339	51
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98

Table 4-10 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route C

Segment Combinations: 2-10-19-25-26-29-37-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
4005	Cowboy Fellowship Church Rodeo Arena	101	65
5002	First Memorial Cemetery	849	19
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5008	Jourdanton City Cemetery	727	68B
--	41AT28	0	--
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--
--	41AT287	0	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

Table 4-10 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route C

Segment Combinations: 2-10-19-25-26-29-37-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-11 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route D

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-100-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
131	Single Family Residence	201	26
132	Single Family Residence	177	26
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19

Table 4-11 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route D

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-100-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	354	19
298	Single Family Residence	467	19
300	Single Family Residence	249	25
301	Single Family Residence	219	25
302	Single Family Residence	470	25
303	Single Family Residence	231	25
304	Single Family Residence	236	25
305	Single Family Residence	468	25
306	Single Family Residence	233	25
307	Single Family Residence	412	25
308	Single Family Residence	164	25
309	Single Family Residence	220	25
310	Single Family Residence	299	25
311	Single Family Residence	395	25
312	Single Family Residence	426	25
313	Single Family Residence	303	25
314	Single Family Residence	397	25
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38

Table 4-11 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route D

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-100-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48

Table 4-11 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route D

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-100-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48
581	Single Family Residence	467	48
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
642	Single Family Residence	442	66
643	Single Family Residence	111	66
673	Single Family Residence	405	72
674	Single Family Residence	167	72
675	Single Family Residence	360	72
676	Single Family Residence	225	72
677	Single Family Residence	255	72
678	Single Family Residence	280	72
679	Single Family Residence	191	72
680	Single Family Residence	189	72
681	Single Family Residence	492	72
682	Single Family Residence	492	72
683	Single Family Residence	424	72
684	Single Family Residence	455	72
740	Single Family Residence	199	100
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
5002	First Memorial Cemetery	849	19
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--

Table 4-11 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route D

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-100-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-12 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route E

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
131	Single Family Residence	201	26
132	Single Family Residence	177	26
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19

Table 4-12 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route E

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	354	19
298	Single Family Residence	467	19
300	Single Family Residence	249	25
301	Single Family Residence	219	25
302	Single Family Residence	470	25
303	Single Family Residence	231	25
304	Single Family Residence	236	25
305	Single Family Residence	468	25
306	Single Family Residence	233	25
307	Single Family Residence	412	25
308	Single Family Residence	164	25
309	Single Family Residence	220	25
310	Single Family Residence	299	25
311	Single Family Residence	395	25
312	Single Family Residence	426	25
313	Single Family Residence	303	25
314	Single Family Residence	397	25
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38

Table 4-12 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route E

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48

Table 4-12 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route E

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48
581	Single Family Residence	467	48
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
642	Single Family Residence	442	66
643	Single Family Residence	111	66
673	Single Family Residence	405	72
674	Single Family Residence	167	72
675	Single Family Residence	360	72
676	Single Family Residence	225	72
677	Single Family Residence	255	72
678	Single Family Residence	280	72
679	Single Family Residence	191	72
680	Single Family Residence	189	72
681	Single Family Residence	492	72
682	Single Family Residence	492	72
683	Single Family Residence	424	72
684	Single Family Residence	455	72
741	Single Family Residence	505	104
3017	Other Electronic Installation	1,936	104
3018	Other Electronic Installation	1,648	109
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
5002	First Memorial Cemetery	849	19
--	41AT263	841	--
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--

Table 4-12 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route E

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
--	41BX861	430	--
--	41BX987	265	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-13 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route F

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-73-80-81-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
131	Single Family Residence	201	26
132	Single Family Residence	177	26
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19

Table 4-13 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route F

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-73-80-81-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	354	19
298	Single Family Residence	467	19
300	Single Family Residence	249	25
301	Single Family Residence	219	25
302	Single Family Residence	470	25
303	Single Family Residence	231	25
304	Single Family Residence	236	25
305	Single Family Residence	468	25
306	Single Family Residence	233	25
307	Single Family Residence	412	25
308	Single Family Residence	164	25
309	Single Family Residence	220	25
310	Single Family Residence	299	25
311	Single Family Residence	395	25
312	Single Family Residence	426	25
313	Single Family Residence	303	25
314	Single Family Residence	397	25
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38

Table 4-13 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route F

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-73-80-81-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48

Table 4-13 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route F

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-73-80-81-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48
581	Single Family Residence	467	48
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
642	Single Family Residence	442	66
643	Single Family Residence	111	66
685	Single Family Residence	136	73
686	Single Family Residence	369	73
687	Single Family Residence	372	73
688	Single Family Residence	436	73
689	Single Family Residence	77	73
690	Single Family Residence	341	73
691	Single Family Residence	333	73
705	Single Family Residence	194	80
706	Commercial	273	80
707	Single Family Residence	427	80
708	Single Family Residence	414	80
709	Single Family Residence	267	80
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2

Table 4-13 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route F

Segment Combinations: 2-10-19-25-26-29-38-48-63-66-73-80-81-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
5002	First Memorial Cemetery	849	19
--	41AT254	403	--
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-14 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route G

Segment Combinations: 2-10-19-25-26-29-38-48-63-67-68A-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
131	Single Family Residence	201	26
132	Single Family Residence	177	26
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19

Table 4-14 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route G

Segment Combinations: 2-10-19-25-26-29-38-48-63-67-68A-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	354	19
298	Single Family Residence	467	19
300	Single Family Residence	249	25
301	Single Family Residence	219	25
302	Single Family Residence	470	25
303	Single Family Residence	231	25
304	Single Family Residence	236	25
305	Single Family Residence	468	25
306	Single Family Residence	233	25
307	Single Family Residence	412	25
308	Single Family Residence	164	25
309	Single Family Residence	220	25
310	Single Family Residence	299	25
311	Single Family Residence	395	25
312	Single Family Residence	426	25
313	Single Family Residence	303	25
314	Single Family Residence	397	25
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38

Table 4-14 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route G

Segment Combinations: 2-10-19-25-26-29-38-48-63-67-68A-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48

Table 4-14 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route G

Segment Combinations: 2-10-19-25-26-29-38-48-63-67-68A-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48
581	Single Family Residence	467	48
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
644	Single Family Residence	226	67
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98

Table 4-14 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route G

Segment Combinations: 2-10-19-25-26-29-38-48-63-67-68A-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
5002	First Memorial Cemetery	849	19
5008	Jourdanton City Cemetery	727	68B
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-15 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H

Segment Combinations: 2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
131	Single Family Residence	201	26
132	Single Family Residence	177	26
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19

Table 4-15 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H

Segment Combinations: 2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	354	19
298	Single Family Residence	467	19
300	Single Family Residence	249	25
301	Single Family Residence	219	25
302	Single Family Residence	470	25
303	Single Family Residence	231	25
304	Single Family Residence	236	25
305	Single Family Residence	468	25
306	Single Family Residence	233	25
307	Single Family Residence	412	25
308	Single Family Residence	164	25
309	Single Family Residence	220	25
310	Single Family Residence	299	25
311	Single Family Residence	395	25
312	Single Family Residence	426	25
313	Single Family Residence	303	25
314	Single Family Residence	397	25
315	Single Family Residence	147	26
316	Single Family Residence	403	26
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38

Table 4-15 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H

Segment Combinations: 2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
536	Single Family Residence	411	49
537	Single Family Residence	502	49
538	Single Family Residence	205	49
539	Single Family Residence	505	49
540	Single Family Residence	424	49
541	Single Family Residence	428	49
542	Single Family Residence	449	49
543	Single Family Residence	190	49
544	Single Family Residence	378	49
545	Single Family Residence	395	49
546	Single Family Residence	404	49
547	Single Family Residence	262	49
548	Single Family Residence	398	49
549	Single Family Residence	318	49
550	Single Family Residence	232	49

Table 4-15 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H

Segment Combinations: 2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
551	Single Family Residence	273	49
552	Single Family Residence	167	49
553	Single Family Residence	454	49
554	Single Family Residence	376	49
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51
591	Single Family Residence	504	51
592	Single Family Residence	339	51
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74

Table 4-15 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H

Segment Combinations: 2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
4005	Cowboy Fellowship Church Rodeo Arena	101	65
5002	First Memorial Cemetery	849	19
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5008	Jourdanton City Cemetery	727	68B
--	41BX1714	360	--
--	41BX1715	0	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--
--	41AT34	452	--
--	41AT42	88	--

Table 4-15 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route H

Segment Combinations: 2-10-19-25-26-29-38-49-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
--	41AT63	716	--
--	41AT64	960	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-16 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route I

Segment Combinations: 2-10-19-27-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110

Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
74	Single Family Residence	105	10
78	Single Family Residence	295	10
79	Single Family Residence	489	10
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19
158	Single Family Residence	465	19
159	Single Family Residence	436	19

Table 4-16 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route I

Segment Combinations: 2-10-19-27-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110

Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
160	Single Family Residence	471	19
297	Single Family Residence	307	27
298	Single Family Residence	328	27
299	Single Family Residence	441	27
317	School	317	27
318	Single Family Residence	211	27
319	Single Family Residence	308	27
320	Single Family Residence	319	27
321	Single Family Residence	473	27
322	Single Family Residence	299	27
323	Single Family Residence	290	27
324	Single Family Residence	336	27
325	Single Family Residence	335	27
326	Single Family Residence	382	28
327	Single Family Residence	411	28
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
560	Single Family Residence	420	50
561	Single Family Residence	444	50
562	Single Family Residence	416	50
563	Single Family Residence	178	50
564	Single Family Residence	448	50
565	Single Family Residence	395	50
566	Single Family Residence	160	50
567	Single Family Residence	217	50
568	Single Family Residence	152	50
604	Single Family Residence	302	55
605	Single Family Residence	259	55
606	Single Family Residence	228	55
607	Single Family Residence	492	55
614	Single Family Residence	345	55
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B

Table 4-16 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route I

Segment Combinations: 2-10-19-27-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110

Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
666	Single Family Residence	285	71
667	Single Family Residence	486	71
668	Single Family Residence	488	71
669	Single Family Residence	480	71
670	Single Family Residence	497	71
671	Single Family Residence	419	71
672	Single Family Residence	440	71
699	Single Family Residence	227	75
700	Single Family Residence	255	75
701	Single Family Residence	212	75
702	Single Family Residence	380	75
703	Single Family Residence	296	75
704	Single Family Residence	252	75
2001	Cannon Field Airstrip	6,391	30
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
4005	Cowboy Fellowship Church Rodeo Arena	101	65
5002	First Memorial Cemetery	831	27
5009	Palaciosville Cemetery	119	107
5008	Jourdanton City Cemetery	727	68B
--	41AT52	0	--

Table 4-16 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route I

Segment Combinations: 2-10-19-27-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110

Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
--	41BX1702	751	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX848	982	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-17 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route J

Segment Combinations: 2-8-9-13-17-29-38-48-63-66-72-84-88-90-91-97-101-105-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
23	Commercial	427	2
24	Commercial	169	2
25	Single Family Residence	270	2
26	Single Family Residence	152	2
27	Single Family Residence	279	2
28	Single Family Residence	368	2
29	Single Family Residence	397	2
30	Single Family Residence	126	2
31	Single Family Residence	194	2
70	Single Family Residence	224	9
71	Single Family Residence	300	8
72	Single Family Residence	199	8
73	Single Family Residence	311	8
74	Single Family Residence	316	2
75	Single Family Residence	249	9
76	Single Family Residence	341	9
77	Single Family Residence	380	9
85	Single Family Residence	269	17
86	Single Family Residence	454	17
88	Single Family Residence	503	17
89	Single Family Residence	321	17
90	Single Family Residence	396	17
91	Single Family Residence	320	17
92	Single Family Residence	213	17
93	Single Family Residence	337	17
94	Single Family Residence	467	17
95	Single Family Residence	325	17
96	Single Family Residence	456	17
97	Single Family Residence	468	17
98	Single Family Residence	329	17
99	Commercial	383	17
100	Single Family Residence	343	17
101	Single Family Residence	347	17
102	Single Family Residence	401	17
103	Single Family Residence	473	17
104	Single Family Residence	448	17
105	Single Family Residence	433	17
106	Single Family Residence	290	17
107	Single Family Residence	350	17

Table 4-17 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route J

Segment Combinations: 2-8-9-13-17-29-38-48-63-66-72-84-88-90-91-97-101-105-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
108	Single Family Residence	402	17
109	Single Family Residence	321	17
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38

Table 4-17 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route J

Segment Combinations: 2-8-9-13-17-29-38-48-63-66-72-84-88-90-91-97-101-105-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48
581	Single Family Residence	467	48
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
642	Single Family Residence	442	66
643	Single Family Residence	111	66
673	Single Family Residence	405	72
674	Single Family Residence	167	72
675	Single Family Residence	360	72
676	Single Family Residence	225	72
677	Single Family Residence	255	72
678	Single Family Residence	280	72

Table 4-17 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route J

Segment Combinations: 2-8-9-13-17-29-38-48-63-66-72-84-88-90-91-97-101-105-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
679	Single Family Residence	191	72
680	Single Family Residence	189	72
681	Single Family Residence	492	72
682	Single Family Residence	492	72
683	Single Family Residence	424	72
684	Single Family Residence	455	72
713	Single Family Residence	212	88
714	Single Family Residence	130	88
715	Single Family Residence	344	88
716	Single Family Residence	139	88
717	Single Family Residence	502	88
718	Single Family Residence	440	90
719	Single Family Residence	232	90
730	Single Family Residence	289	97
731	Single Family Residence	407	97
732	Single Family Residence	351	97
3017	Other Electronic Installation	1,955	109
3018	Other Electronic Installation	1,648	109
4001	TPWD Lone Star Pass Public Hunting Area	309	2
4002	Medina River Natural Area	320	2
--	41AT263	841	--
--	41BX2464	560	--
--	41BX2528	673	--
--	41BX668	159	--
--	41BX850	30	--
--	41BX851	881	--
--	41BX853	115	--
--	41BX858	341	--
--	41BX860	0	--
--	41BX861	430	--
--	41BX987	265	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX849	116	--
--	41BX852	429	--
--	41BX854	42	--
--	41BX855	0	--

Table 4-17 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route J

Segment Combinations: 2-8-9-13-17-29-38-48-63-66-72-84-88-90-91-97-101-105-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
--	41BX856	139	--
--	41BX552	32	--
--	41BX346	33	--
--	41BX857	966	--
6001	Theodore Heermann Barn and Ruins	894	2

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-18 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route K

Segment Combinations: 3-6-14-19-27-28-30-31-35-41-45A-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
80	Single Family Residence	461	14
133	Single Family Residence	277	19
134	Commercial	408	19
135	Single Family Residence	86	19
136	Single Family Residence	161	19
137	Single Family Residence	292	19
138	Single Family Residence	468	19
139	Single Family Residence	136	19
140	Single Family Residence	115	19
141	Single Family Residence	300	19
142	Single Family Residence	360	19
143	Single Family Residence	447	19
144	Single Family Residence	142	19
145	Single Family Residence	135	19
146	Single Family Residence	303	19
147	Single Family Residence	320	19
148	Single Family Residence	402	19
149	Single Family Residence	452	19
150	Single Family Residence	99	19
151	Single Family Residence	187	19
152	Single Family Residence	212	19
153	Single Family Residence	297	19
154	Single Family Residence	368	19
155	Single Family Residence	445	19
156	Single Family Residence	462	19
157	Single Family Residence	277	19
158	Single Family Residence	465	19
159	Single Family Residence	436	19
160	Single Family Residence	471	19
297	Single Family Residence	307	27
298	Single Family Residence	328	27
299	Single Family Residence	441	27
317	School	317	27

Table 4-18 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route K

Segment Combinations: 3-6-14-19-27-28-30-31-35-41-45A-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
318	Single Family Residence	211	27
319	Single Family Residence	308	27
320	Single Family Residence	319	27
321	Single Family Residence	473	27
322	Single Family Residence	299	27
323	Single Family Residence	290	27
324	Single Family Residence	336	27
325	Single Family Residence	335	27
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
608	Single Family Residence	481	56
609	Single Family Residence	398	56
610	Single Family Residence	269	56
611	Single Family Residence	414	56
612	Single Family Residence	493	56
623	Single Family Residence	201	61
624	Single Family Residence	473	61
625	Single Family Residence	139	61
626	Single Family Residence	311	61
627	Single Family Residence	302	61
628	Single Family Residence	422	61
629	Single Family Residence	472	61
630	Single Family Residence	326	61
631	Single Family Residence	402	61
632	Single Family Residence	241	61
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62

Table 4-18 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route K

Segment Combinations: 3-6-14-19-27-28-30-31-35-41-45A-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	15,589	61
3014	AM Tower	8,265	56
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5002	First Memorial Cemetery	831	27
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX1702	751	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-19 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route L

Segment Combinations: 3-6-15-16-22A-22B-32-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
69	Single Family Residence	317	16
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
87	Single Family Residence	496	16
186	Single Family Residence	186	22B
187	Single Family Residence	471	22B
188	Single Family Residence	508	22B
189	Single Family Residence	503	22B
190	Single Family Residence	507	22B
191	Single Family Residence	414	22B
192	Single Family Residence	320	22B
193	Single Family Residence	296	22B
194	Single Family Residence	352	22B
195	Single Family Residence	292	22B
196	Single Family Residence	309	22B
197	Single Family Residence	450	22B
198	Single Family Residence	303	22B
199	Single Family Residence	168	22B
331	Single Family Residence	113	32
332	Single Family Residence	345	32
333	Single Family Residence	504	32
334	Single Family Residence	138	32
335	Single Family Residence	395	32
336	Single Family Residence	164	32
337	Single Family Residence	157	32
338	Single Family Residence	404	32
339	Single Family Residence	507	32
340	Single Family Residence	174	32
341	Single Family Residence	409	32
342	Single Family Residence	147	22B
343	Single Family Residence	425	32

Table 4-19 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route L

Segment Combinations: 3-6-15-16-22A-22B-32-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
344	Single Family Residence	420	22B
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
604	Single Family Residence	302	55
605	Single Family Residence	259	55
606	Single Family Residence	228	55
607	Single Family Residence	492	55
614	Single Family Residence	345	55
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74

Table 4-19 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route L

Segment Combinations: 3-6-15-16-22A-22B-32-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2001	Cannon Field Airstrip	1,655	16
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,377	15
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5008	Jourdanton City Cemetery	727	68B
--	41BX2528	568	--
--	41BX534	0	--
--	41BX536	0	--
--	41BX541	0	--
--	41BX835	774	--
--	41BX836	590	--
--	41BX847	445	--
--	41BX989	750	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX1579	0	--
--	41BX347	316	--

Table 4-19 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route L

Segment Combinations: 3-6-15-16-22A-22B-32-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-20 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route M

Segment Combinations: 3-6-15-21-30-31-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
604	Single Family Residence	302	55
605	Single Family Residence	259	55

Table 4-20 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route M

Segment Combinations: 3-6-15-21-30-31-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
606	Single Family Residence	228	55
607	Single Family Residence	492	55
614	Single Family Residence	345	55
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2001	Cannon Field Airstrip	3,816	21

Table 4-20 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route M

Segment Combinations: 3-6-15-21-30-31-35-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,247	21
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5008	Jourdanton City Cemetery	727	68B
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-21 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route N

Segment Combinations: 3-6-15-21-30-34-39-40-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
490	Commercial	244	39
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
604	Single Family Residence	302	55

Table 4-21 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route N

Segment Combinations: 3-6-15-21-30-34-39-40-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
605	Single Family Residence	259	55
606	Single Family Residence	228	55
607	Single Family Residence	492	55
614	Single Family Residence	345	55
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98

Table 4-21 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route N

Segment Combinations: 3-6-15-21-30-34-39-40-41-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
2001	Cannon Field Airstrip	3,816	21
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,247	21
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5008	Jourdanton City Cemetery	727	68B
--	41AT282	31	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-22 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route O

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-91-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51
591	Single Family Residence	504	51
592	Single Family Residence	339	51

Table 4-22 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route O

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-91-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
718	Single Family Residence	440	90
719	Single Family Residence	232	90
730	Single Family Residence	289	97
731	Single Family Residence	407	97
732	Single Family Residence	351	97
2001	Cannon Field Airstrip	3,816	21
2002	Alderman Farm Airstrip	7,093	59

Table 4-22 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route O

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-91-97-101-102-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,247	21
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5008	Jourdanton City Cemetery	727	68B
--	41AT254	403	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-23 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route P

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-92-93-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51
591	Single Family Residence	504	51
592	Single Family Residence	339	51

Table 4-23 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route P

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-92-93-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
718	Single Family Residence	440	90
719	Single Family Residence	232	90
720	Single Family Residence	185	92
721	Single Family Residence	402	92
722	Single Family Residence	481	92
723	Single Family Residence	408	93
2001	Cannon Field Airstrip	3,816	21

Table 4-23 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route P

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-81-85-90-92-93-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,247	21
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5009	Palaciosville Cemetery	119	107
5008	Jourdanton City Cemetery	727	68B
--	41AT254	403	--
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-24 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Q

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-83-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51
591	Single Family Residence	504	51
592	Single Family Residence	339	51

Table 4-24 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Q

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-83-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
2001	Cannon Field Airstrip	3,816	21
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,247	21

Table 4-24 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Q

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-83-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5009	Palaciosville Cemetery	119	107
5008	Jourdanton City Cemetery	727	68B
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-25 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route R

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51
591	Single Family Residence	504	51
592	Single Family Residence	339	51

Table 4-25 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route R

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98

Table 4-25 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route R

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2001	Cannon Field Airstrip	3,816	21
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,247	21
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5008	Jourdanton City Cemetery	727	68B
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-26 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route S

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-60-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
586	Single Family Residence	476	51
587	Single Family Residence	278	51
588	Single Family Residence	485	51
589	Single Family Residence	507	51
590	Single Family Residence	488	51
591	Single Family Residence	504	51
592	Single Family Residence	339	51

Table 4-26 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route S

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-60-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
593	Single Family Residence	369	51
594	Single Family Residence	278	51
595	Single Family Residence	361	51
596	Single Family Residence	298	51
597	Single Family Residence	189	51
598	Single Family Residence	80	51
614	Single Family Residence	397	58
615	Single Family Residence	466	60
616	Single Family Residence	450	60
617	Single Family Residence	365	60
618	Single Family Residence	367	60
620	Single Family Residence	351	60
621	Single Family Residence	140	60
622	Single Family Residence	505	60
623	Single Family Residence	201	61
624	Single Family Residence	473	61
625	Single Family Residence	139	61
626	Single Family Residence	311	61
627	Single Family Residence	302	61
628	Single Family Residence	422	61
629	Single Family Residence	472	61
630	Single Family Residence	326	61
631	Single Family Residence	402	61
632	Single Family Residence	241	61
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	3,816	21
2003	Pleasanton Municipal Airport	15,446	60
3002	Other Electronic Installation	1,247	21

Table 4-26 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route S

Segment Combinations: 3-6-15-21-30-34-39-44-47-51-58-60-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
3012	Other Electronic Installation	1,318	51
3013	Other Electronic Installation	1,042	60
3014	AM Tower	1,819	60
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5001	Oak Island Cemetery & 41BX521	214	21
5005	Estrada Cemetery	982	51
5006	Garcia Cemetery	663	51
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-27 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route T

Segment Combinations: 3-6-15-21-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
81	Single Family Residence	202	15
82	Single Family Residence	286	15
83	Single Family Residence	262	15
84	Single Family Residence	117	15
167	Single Family Residence	202	21
168	Single Family Residence	304	21
169	Single Family Residence	342	21
170	Single Family Residence	443	21
171	Single Family Residence	423	21
172	Single Family Residence	329	21
173	Single Family Residence	238	21
174	Single Family Residence	487	21
175	Single Family Residence	402	21
176	Single Family Residence	178	21
177	Single Family Residence	261	21
178	Single Family Residence	220	21
179	Single Family Residence	348	21
180	Single Family Residence	369	21
181	Single Family Residence	319	21
182	Single Family Residence	411	21
183	Single Family Residence	486	21
184	Single Family Residence	422	21
185	Single Family Residence	450	21
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
560	Single Family Residence	420	50
561	Single Family Residence	444	50
562	Single Family Residence	416	50
563	Single Family Residence	178	50
564	Single Family Residence	448	50
565	Single Family Residence	395	50
566	Single Family Residence	160	50

Table 4-27 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route T

Segment Combinations: 3-6-15-21-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
567	Single Family Residence	217	50
568	Single Family Residence	152	50
608	Single Family Residence	481	56
609	Single Family Residence	398	56
610	Single Family Residence	269	56
611	Single Family Residence	414	56
612	Single Family Residence	493	56
623	Single Family Residence	201	61
624	Single Family Residence	473	61
625	Single Family Residence	139	61
626	Single Family Residence	311	61
627	Single Family Residence	302	61
628	Single Family Residence	422	61
629	Single Family Residence	472	61
630	Single Family Residence	326	61
631	Single Family Residence	402	61
632	Single Family Residence	241	61
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	3,816	21
2003	Pleasanton Municipal Airport	15,589	61
3002	Other Electronic Installation	1,247	21
3014	AM Tower	8,265	56
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--

Table 4-27 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route T

Segment Combinations: 3-6-15-21-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
5001	Oak Island Cemetery & 41BX521	214	21
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-28 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route U

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-52-56-61-62-69-75-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
608	Single Family Residence	481	56
609	Single Family Residence	398	56
610	Single Family Residence	269	56
611	Single Family Residence	414	56
612	Single Family Residence	493	56
623	Single Family Residence	201	61
624	Single Family Residence	473	61
625	Single Family Residence	139	61
626	Single Family Residence	311	61
627	Single Family Residence	302	61
628	Single Family Residence	422	61
629	Single Family Residence	472	61
630	Single Family Residence	326	61
631	Single Family Residence	402	61
632	Single Family Residence	241	61
633	Single Family Residence	289	62
634	Single Family Residence	345	62

Table 4-28 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route U

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-52-56-61-62-69-75-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
659	Single Family Residence	293	69
699	Single Family Residence	211	69
700	Single Family Residence	255	75
701	Single Family Residence	212	75
702	Single Family Residence	380	75
703	Single Family Residence	296	75
704	Single Family Residence	252	75
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	15,589	61
3002	Other Electronic Installation	1,992	20
3014	AM Tower	8,265	56
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4006	TxDOT Roadside Park	249	69
--	41BX675	225	--
--	41BX837	227	--
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-29 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route V

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-69-75-76-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
599	Single Family Residence	380	53
600	Single Family Residence	184	53
601	Single Family Residence	467	53
602	Single Family Residence	233	53
603	Single Family Residence	483	53
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
659	Single Family Residence	293	69
699	Single Family Residence	211	69
700	Single Family Residence	255	75
701	Single Family Residence	212	75
702	Single Family Residence	380	75

Table 4-29 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route V

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-69-75-76-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
703	Single Family Residence	296	75
704	Single Family Residence	252	75
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	19,325	62
3002	Other Electronic Installation	1,992	20
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4006	TxDOT Roadside Park	249	69
--	41BX675	225	--
--	41BX837	227	--
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	KH1	74	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-30 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route W

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-69-75-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
599	Single Family Residence	380	53
600	Single Family Residence	184	53
601	Single Family Residence	467	53
602	Single Family Residence	233	53
603	Single Family Residence	483	53
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
659	Single Family Residence	293	69
699	Single Family Residence	211	69
700	Single Family Residence	255	75
701	Single Family Residence	212	75
702	Single Family Residence	380	75

Table 4-30 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route W

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-69-75-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
703	Single Family Residence	296	75
704	Single Family Residence	252	75
2,001	Cannon Field Airstrip	6,391	30
2,003	Pleasanton Municipal Airport	19,325	62
3002	Other Electronic Installation	1,992	20
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4006	TxDOT Roadside Park	249	69
--	41BX675	225	--
--	41BX837	227	--
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	KH1	74	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-31 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route X

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-70-76-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
599	Single Family Residence	380	53
600	Single Family Residence	184	53
601	Single Family Residence	467	53
602	Single Family Residence	233	53
603	Single Family Residence	483	53
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70

Table 4-31 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route X

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-70-76-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	19,325	62
3002	Other Electronic Installation	1,992	20
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	KH1	74	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-32 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Y

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
599	Single Family Residence	380	53
600	Single Family Residence	184	53
601	Single Family Residence	467	53
602	Single Family Residence	233	53
603	Single Family Residence	483	53
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70

Table 4-32 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Y

Segment Combinations: 3-6-20-28-30-31-35-41-45A-45B-53-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	19,325	62
3002	Other Electronic Installation	1,992	20
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	KH1	74	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-33 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Z

Segment Combinations: 3-6-20-28-30-34-39-40-41-45A-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
490	Single Family Residence	244	39
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
608	Single Family Residence	481	56
609	Single Family Residence	398	56
610	Single Family Residence	269	56
611	Single Family Residence	414	56
612	Single Family Residence	493	56
623	Single Family Residence	201	61
624	Single Family Residence	473	61
625	Single Family Residence	139	61
626	Single Family Residence	311	61
627	Single Family Residence	302	61
628	Single Family Residence	422	61
629	Single Family Residence	472	61
630	Single Family Residence	326	61
631	Single Family Residence	402	61
632	Single Family Residence	241	61
633	Single Family Residence	289	62

Table 4-33 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route Z

Segment Combinations: 3-6-20-28-30-34-39-40-41-45A-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	15,589	61
3002	Other Electronic Installation	1,992	20
3014	AM Tower	8,265	56
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5009	Palaciosville Cemetery	119	107
--	41AT282	31	--
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-34 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AA

Segment Combinations: 3-6-20-28-30-34-39-40-41-45A-45B-53-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
490	Commercial	244	39
491	Single Family Residence	344	41
492	Single Family Residence	149	41
493	Single Family Residence	491	41
494	Single Family Residence	462	41
599	Single Family Residence	380	53
600	Single Family Residence	184	53
601	Single Family Residence	467	53
602	Single Family Residence	233	53
603	Single Family Residence	483	53
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70

Table 4-34 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AA

Segment Combinations: 3-6-20-28-30-34-39-40-41-45A-45B-53-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	19,325	62
3002	Other Electronic Installation	1,992	20
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT282	31	--
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	KH1	74	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-35 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AB

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110

Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
560	Single Family Residence	420	50
561	Single Family Residence	444	50
562	Single Family Residence	416	50
563	Single Family Residence	178	50
564	Single Family Residence	448	50
565	Single Family Residence	395	50
566	Single Family Residence	160	50
567	Single Family Residence	217	50
568	Single Family Residence	152	50
604	Single Family Residence	302	55
605	Single Family Residence	259	55
606	Single Family Residence	228	55
607	Single Family Residence	492	55
614	Single Family Residence	345	55
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B

Table 4-35 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AB

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110

Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
666	Single Family Residence	285	71
667	Single Family Residence	486	71
668	Single Family Residence	488	71
669	Single Family Residence	480	71
670	Single Family Residence	497	71
671	Single Family Residence	419	71
672	Single Family Residence	440	71
699	Single Family Residence	227	75
700	Single Family Residence	255	75
701	Single Family Residence	212	75
702	Single Family Residence	380	75
703	Single Family Residence	296	75
704	Single Family Residence	252	75
2001	Cannon Field Airstrip	6,391	30
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3002	Other Electronic Installation	1,992	20
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX675	225	--
--	41BX837	227	--
5008	Jourdanton City Cemetery	727	68B
5009	Palaciosville Cemetery	119	107

Table 4-35 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AB

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-52-54-55-58-59-65-68B-71-75-77-87-94-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-36 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AC

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
560	Single Family Residence	420	50
561	Single Family Residence	444	50
562	Single Family Residence	416	50
563	Single Family Residence	178	50
564	Single Family Residence	448	50
565	Single Family Residence	395	50
566	Single Family Residence	160	50
567	Single Family Residence	217	50
568	Single Family Residence	152	50
608	Single Family Residence	481	56
609	Single Family Residence	398	56
610	Single Family Residence	269	56
611	Single Family Residence	414	56
612	Single Family Residence	493	56
623	Single Family Residence	201	61
624	Single Family Residence	473	61
625	Single Family Residence	139	61
626	Single Family Residence	311	61
627	Single Family Residence	302	61
628	Single Family Residence	422	61
629	Single Family Residence	472	61
630	Single Family Residence	326	61

Table 4-36 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AC

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-52-56-61-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
631	Single Family Residence	402	61
632	Single Family Residence	241	61
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	15,589	61
3002	Other Electronic Installation	1,992	20
3014	AM Tower	8,265	56
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-37 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AD

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-53-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
48	Single Family Residence	504	6
49	Single Family Residence	297	6
50	Single Family Residence	502	6
51	Single Family Residence	265	6
52	Single Family Residence	287	6
53	Single Family Residence	459	6
161	Single Family Residence	122	20
162	Single Family Residence	178	20
163	Single Family Residence	78	20
164	Single Family Residence	252	20
165	Single Family Residence	394	20
166	Single Family Residence	232	20
326	Single Family Residence	382	28
327	Single Family Residence	411	28
460	Single Family Residence	363	44
461	Single Family Residence	477	44
490	Commercial	244	39
560	Single Family Residence	420	50
561	Single Family Residence	444	50
562	Single Family Residence	416	50
563	Single Family Residence	178	50
564	Single Family Residence	448	50
565	Single Family Residence	395	50
566	Single Family Residence	160	50
567	Single Family Residence	217	50
568	Single Family Residence	152	50
599	Single Family Residence	380	53
600	Single Family Residence	184	53
601	Single Family Residence	467	53
602	Single Family Residence	233	53
603	Single Family Residence	483	53
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70

Table 4-37 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AD

Segment Combinations: 3-6-20-28-30-34-39-44-50-45B-53-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,391	30
2003	Pleasanton Municipal Airport	19,325	62
3002	Other Electronic Installation	1,992	20
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	6
--	41BX675	225	--
--	41BX837	227	--
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX2528	568	--
--	41BX836	590	--
--	41BX847	445	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	KH1	74	--
--	41BX1579	0	--
--	41BX347	316	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-38 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE

Segment Combinations: 3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
54	Commercial	398	7
55	Commercial	386	7
56	Commercial	288	7
57	Commercial	300	7
58	Commercial	479	7
59	Commercial	487	7
60	Commercial	481	7
61	Single Family Residence	243	11
62	Single Family Residence	133	11
63	Single Family Residence	375	11
64	Single Family Residence	280	11
65	Single Family Residence	502	11
66	Single Family Residence	321	11
67	Single Family Residence	375	11
68	Single Family Residence	384	11
69	Single Family Residence	100	11
200	Single Family Residence	89	12
201	Single Family Residence	414	12
202	Single Family Residence	510	12
203	Single Family Residence	470	12
204	Single Family Residence	420	12
205	Single Family Residence	453	12
206	Single Family Residence	353	12
207	Single Family Residence	128	12
208	Single Family Residence	272	12
209	Single Family Residence	306	12
210	Single Family Residence	401	12
211	Single Family Residence	96	12
212	Single Family Residence	96	12
213	Single Family Residence	132	12
214	Single Family Residence	207	12
215	Single Family Residence	466	12
216	Single Family Residence	417	12
217	Single Family Residence	358	12
218	Single Family Residence	473	12
219	Single Family Residence	263	24
220	Single Family Residence	303	24
221	Single Family Residence	438	24
222	Single Family Residence	264	24

Table 4-38 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE

Segment Combinations: 3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
223	Single Family Residence	304	24
224	Single Family Residence	350	24
225	Single Family Residence	492	24
226	Single Family Residence	412	24
227	Single Family Residence	434	24
228	Single Family Residence	337	24
229	Single Family Residence	156	24
230	Single Family Residence	198	24
231	Single Family Residence	158	24
232	Single Family Residence	432	24
233	Single Family Residence	384	24
234	Single Family Residence	256	24
235	Single Family Residence	231	24
236	Single Family Residence	418	24
237	Single Family Residence	465	24
238	Single Family Residence	223	24
239	Single Family Residence	456	24
240	Single Family Residence	385	24
241	Single Family Residence	335	24
242	Single Family Residence	307	24
243	Single Family Residence	190	24
244	Commercial	156	24
245	Commercial	137	24
246	Single Family Residence	268	24
247	Single Family Residence	193	24
248	Single Family Residence	369	24
249	Single Family Residence	319	24
250	Single Family Residence	241	24
251	Single Family Residence	340	24
252	Single Family Residence	383	24
253	Single Family Residence	393	24
254	Single Family Residence	369	24
255	Single Family Residence	202	24
256	Single Family Residence	427	24
257	Single Family Residence	92	24
258	Single Family Residence	162	24
259	Single Family Residence	506	24
260	Single Family Residence	155	24
261	Single Family Residence	332	24

Table 4-38 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE

Segment Combinations: 3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
262	Single Family Residence	467	24
263	Single Family Residence	309	24
264	Single Family Residence	436	24
265	Single Family Residence	327	24
266	Single Family Residence	400	24
267	Single Family Residence	319	24
268	Single Family Residence	180	24
269	Single Family Residence	415	24
270	Single Family Residence	106	24
271	Single Family Residence	80	24
272	Single Family Residence	172	24
273	Single Family Residence	282	24
274	Single Family Residence	484	24
275	Single Family Residence	188	24
276	Single Family Residence	280	24
277	Single Family Residence	409	24
278	Single Family Residence	220	24
279	Single Family Residence	382	24
280	Single Family Residence	483	24
281	Single Family Residence	428	24
282	Single Family Residence	199	24
283	Commercial	275	24
284	Single Family Residence	152	24
285	Single Family Residence	160	24
286	Single Family Residence	184	24
287	Single Family Residence	440	24
288	Single Family Residence	237	24
289	Single Family Residence	171	24
290	Single Family Residence	236	24
291	Commercial	371	24
292	Single Family Residence	484	24
293	Single Family Residence	275	24
294	Single Family Residence	212	24
295	Commercial	412	24
296	Commercial	441	24
500	Single Family Residence	311	46
501	Single Family Residence	432	46
502	Single Family Residence	363	46
503	Single Family Residence	381	46

Table 4-38 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE

Segment Combinations: 3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
504	Single Family Residence	467	46
505	Single Family Residence	380	46
506	Commercial	459	46
507	Commercial	234	46
508	Commercial	276	46
509	Commercial	455	46
510	Single Family Residence	494	46
511	Commercial	263	46
512	Commercial	248	46
513	Commercial	284	46
514	Commercial	104	46
515	Commercial	266	46
516	Single Family Residence	302	46
517	Single Family Residence	367	46
518	Single Family Residence	470	46
519	Single Family Residence	463	46
520	Single Family Residence	346	46
521	Single Family Residence	136	46
522	Single Family Residence	275	46
523	Single Family Residence	269	46
524	Single Family Residence	313	46
525	Single Family Residence	509	46
526	Single Family Residence	328	46
527	Single Family Residence	293	46
528	Single Family Residence	324	46
529	Single Family Residence	458	46
530	Single Family Residence	458	46
531	Commercial	205	46
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70

Table 4-38 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE

Segment Combinations: 3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,956	22A
2003	Pleasanton Municipal Airport	19,325	62
3001	Other Electronic Installation	404	7
3004	Other Electronic Installation	1,342	12
3005	Other Electronic Installation	1,000	24
3006	Other Electronic Installation	830	24
3007	Other Electronic Installation	1,381	24
3008	Other Electronic Installation	1,860	24
3009	Other Electronic Installation	658	24
3011	Other Electronic Installation	909	46
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	7
4003	Medina River Preserve	0	7
4004	Medina River Greenway Pk Trail	0	7
--	41BX676	154	--
5004	Brite Cemetery	185	46
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX1574	281	--
--	41BX2399	872	--
--	41BX2528	568	--
--	41BX530	351	--
--	41BX653	277	--
--	41BX656	0	--
--	41BX658	59	--
--	41BX666	116	--
--	41BX915	820	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX659	329	--

Table 4-38 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AE

Segment Combinations: 3-7-11-22A-12-24-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
--	AVAR 1	848	--
--	41BX669	559	--
--	41BX533	0	--
--	41BX349	239	--
--	41BX652	0	--
--	41BX988	0	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-39 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF

Segment Combinations: 3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
54	Commercial	398	7
55	Commercial	386	7
56	Commercial	288	7
57	Commercial	300	7
58	Commercial	479	7
59	Commercial	487	7
60	Commercial	481	7
61	Single Family Residence	243	11
62	Single Family Residence	133	11
63	Single Family Residence	375	11
64	Single Family Residence	280	11
65	Single Family Residence	502	11
66	Single Family Residence	321	11
67	Single Family Residence	375	11
68	Single Family Residence	384	11
69	Single Family Residence	100	11
186	Single Family Residence	186	22B
187	Single Family Residence	471	22B
188	Single Family Residence	508	22B
189	Single Family Residence	503	22B
190	Single Family Residence	507	22B
191	Single Family Residence	414	22B
192	Single Family Residence	320	22B
193	Single Family Residence	296	22B
194	Single Family Residence	352	22B
195	Single Family Residence	292	22B
196	Single Family Residence	309	22B
197	Single Family Residence	450	22B
198	Single Family Residence	303	22B
199	Single Family Residence	168	22B
337	Single Family Residence	411	22B
340	Single Family Residence	227	22B
341	Single Family Residence	472	22B
342	Single Family Residence	118	33
343	Single Family Residence	380	33
344	Single Family Residence	252	33
345	Single Family Residence	304	33
346	Single Family Residence	176	33
347	Single Family Residence	231	33

Table 4-39 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF

Segment Combinations: 3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
348	Single Family Residence	346	33
349	Single Family Residence	411	33
350	Single Family Residence	218	33
351	Single Family Residence	167	33
352	Single Family Residence	430	33
353	Single Family Residence	448	33
354	Single Family Residence	345	33
355	Single Family Residence	447	33
356	Single Family Residence	352	33
357	Single Family Residence	382	33
358	Single Family Residence	112	33
359	Single Family Residence	172	33
360	Single Family Residence	247	33
361	Single Family Residence	355	33
362	Single Family Residence	459	36
363	Single Family Residence	305	36
364	Single Family Residence	460	36
365	Single Family Residence	386	36
366	Single Family Residence	435	36
367	Single Family Residence	307	36
368	Single Family Residence	363	36
369	Single Family Residence	406	36
370	Single Family Residence	477	36
371	Commercial	501	36
372	Single Family Residence	459	36
373	Single Family Residence	281	36
374	Single Family Residence	293	36
375	Single Family Residence	379	36
376	Commercial	443	36
377	Single Family Residence	406	36
378	Single Family Residence	406	36
379	Single Family Residence	347	36
380	Single Family Residence	445	36
381	Single Family Residence	338	36
382	Single Family Residence	143	36
383	Single Family Residence	158	36
384	Single Family Residence	312	36
385	Single Family Residence	496	36
386	Single Family Residence	184	36

Table 4-39 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF

Segment Combinations: 3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
387	Single Family Residence	243	36
388	Single Family Residence	147	36
389	Single Family Residence	394	36
390	Single Family Residence	171	36
391	Single Family Residence	173	36
392	Single Family Residence	221	36
393	Single Family Residence	311	36
394	Single Family Residence	222	36
395	Single Family Residence	159	36
396	Single Family Residence	235	36
397	Single Family Residence	287	36
398	Single Family Residence	484	36
399	Single Family Residence	145	36
400	Single Family Residence	243	36
401	Single Family Residence	450	36
402	Single Family Residence	279	36
403	Single Family Residence	449	36
404	Single Family Residence	505	36
405	Single Family Residence	425	36
406	Single Family Residence	250	36
407	Single Family Residence	198	36
408	Single Family Residence	157	36
409	Single Family Residence	238	36
410	Single Family Residence	228	36
411	Single Family Residence	233	36
412	Single Family Residence	482	36
413	Single Family Residence	307	36
414	Single Family Residence	371	36
415	Single Family Residence	244	36
416	Single Family Residence	300	36
417	Single Family Residence	366	36
418	Single Family Residence	409	36
419	Single Family Residence	315	36
420	Single Family Residence	337	36
421	Single Family Residence	341	36
422	Single Family Residence	371	36
423	Single Family Residence	451	36
424	Single Family Residence	468	36
425	Single Family Residence	128	36

Table 4-39 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF

Segment Combinations: 3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
426	Single Family Residence	140	36
427	Single Family Residence	172	36
428	Single Family Residence	196	36
429	Single Family Residence	286	36
430	Single Family Residence	365	36
431	Single Family Residence	463	36
432	Single Family Residence	229	36
433	Single Family Residence	340	36
434	Single Family Residence	451	36
435	Single Family Residence	212	36
436	Single Family Residence	338	36
437	Single Family Residence	443	36
458	Single Family Residence	508	36
462	Single Family Residence	154	45A
463	Single Family Residence	382	45A
465	Single Family Residence	364	45A
467	Single Family Residence	380	45A
495	Single Family Residence	274	42
496	Single Family Residence	481	42
497	Single Family Residence	369	42
498	Single Family Residence	395	42
499	Single Family Residence	506	42
604	Single Family Residence	302	55
605	Single Family Residence	259	55
606	Single Family Residence	228	55
607	Single Family Residence	492	55
614	Single Family Residence	345	55
619	Commercial	494	59
639	Church	364	65
640	Single Family Residence	494	65
641	Single Family Residence	507	65
645	Single Family Residence	146	68B
646	Single Family Residence	423	68B
647	Commercial	210	68B
648	Commercial	375	68B
649	Commercial	278	68B
650	Commercial	502	68B
651	Commercial	79	68B
652	Commercial	240	68B

Table 4-39 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF

Segment Combinations: 3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
653	Commercial	128	68B
654	Commercial	410	68B
655	Single Family Residence	391	68B
656	Single Family Residence	238	68B
657	Single Family Residence	495	68B
658	Single Family Residence	375	68B
692	Single Family Residence	385	74
693	Single Family Residence	137	74
694	Single Family Residence	193	74
695	Single Family Residence	204	74
696	Single Family Residence	499	74
697	Single Family Residence	249	74
698	Single Family Residence	238	74
710	Single Family Residence	283	82
711	Single Family Residence	506	82
712	Commercial	182	86
733	Single Family Residence	120	98
734	Single Family Residence	203	98
735	Single Family Residence	242	98
736	Single Family Residence	225	98
737	Single Family Residence	392	98
738	Single Family Residence	367	98
739	Single Family Residence	381	98
2001	Cannon Field Airstrip	6,956	22A
2002	Alderman Farm Airstrip	7,093	59
2003	Pleasanton Municipal Airport	5,418	68B
2004	Methodist Hospital South Heliport	1,575	68B
3001	Other Electronic Installation	404	7
3010	Other Electronic Installation	203	33
3013	Other Electronic Installation	854	59
3014	AM Tower	2,527	59
3015	Other Electronic Installation	539	68B
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	7
4003	Medina River Preserve	0	7
4004	Medina River Greenway Park Trail	0	7
4005	Cowboy Fellowship Church Rodeo Arena	101	65
--	41BX676	154	--

Table 4-39 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AF

Segment Combinations: 3-7-11-22A-22B-33-36-42-45A-45B-52-54-55-58-59-65-68B-74-82-86-98-106-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
5003	Barney Williams Cemetery	900	36
5008	Jourdanton City Cemetery	727	68B
--	41BX1574	281	--
--	41BX2399	872	--
--	41BX2528	568	--
--	41BX530	351	--
--	41BX653	277	--
--	41BX656	0	--
--	41BX658	59	--
--	41BX666	116	--
--	41BX915	820	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX659	329	--
--	AVAR 1	632	--
--	41BX669	559	--
--	41BX533	0	--
--	41BX349	239	--
--	41BX652	0	--
--	41BX988	0	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-40 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG

Segment Combinations: 3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
54	Commercial	398	7
55	Commercial	386	7
56	Commercial	288	7
57	Commercial	300	7
58	Commercial	479	7
59	Commercial	487	7
60	Commercial	481	7
61	Single Family Residence	243	11
62	Single Family Residence	133	11
63	Single Family Residence	375	11
64	Single Family Residence	280	11
65	Single Family Residence	502	11
66	Single Family Residence	321	11
67	Single Family Residence	375	11
68	Single Family Residence	384	11
69	Single Family Residence	100	11
186	Single Family Residence	186	22B
187	Single Family Residence	471	22B
188	Single Family Residence	508	22B
189	Single Family Residence	503	22B
190	Single Family Residence	507	22B
191	Single Family Residence	414	22B
192	Single Family Residence	320	22B
193	Single Family Residence	296	22B
194	Single Family Residence	352	22B
195	Single Family Residence	292	22B
196	Single Family Residence	309	22B
197	Single Family Residence	450	22B
198	Single Family Residence	303	22B
199	Single Family Residence	168	22B
337	Single Family Residence	411	22B
340	Single Family Residence	227	22B
341	Single Family Residence	472	22B
342	Single Family Residence	118	33
343	Single Family Residence	380	33
344	Single Family Residence	252	33
345	Single Family Residence	304	33
346	Single Family Residence	176	33
347	Single Family Residence	231	33

Table 4-40 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG

Segment Combinations: 3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
348	Single Family Residence	346	33
349	Single Family Residence	411	33
350	Single Family Residence	218	33
351	Single Family Residence	167	33
352	Single Family Residence	430	33
353	Single Family Residence	448	33
354	Single Family Residence	345	33
355	Single Family Residence	447	33
356	Single Family Residence	352	33
357	Single Family Residence	382	33
358	Single Family Residence	112	33
359	Single Family Residence	172	33
360	Single Family Residence	247	33
361	Single Family Residence	355	33
362	Single Family Residence	459	36
363	Single Family Residence	305	36
364	Single Family Residence	460	36
365	Single Family Residence	386	36
366	Single Family Residence	435	36
367	Single Family Residence	307	36
368	Single Family Residence	363	36
369	Single Family Residence	406	36
370	Single Family Residence	477	36
371	Commercial	501	36
372	Single Family Residence	459	36
373	Single Family Residence	281	36
374	Single Family Residence	293	36
375	Single Family Residence	379	36
376	Commercial	443	36
377	Single Family Residence	406	36
378	Single Family Residence	406	36
379	Single Family Residence	347	36
380	Single Family Residence	445	36
381	Single Family Residence	338	36
382	Single Family Residence	143	36
383	Single Family Residence	158	36
384	Single Family Residence	312	36
385	Single Family Residence	496	36
386	Single Family Residence	184	36

Table 4-40 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG

Segment Combinations: 3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
387	Single Family Residence	243	36
388	Single Family Residence	147	36
389	Single Family Residence	394	36
390	Single Family Residence	171	36
391	Single Family Residence	173	36
392	Single Family Residence	221	36
393	Single Family Residence	311	36
394	Single Family Residence	222	36
395	Single Family Residence	159	36
396	Single Family Residence	235	36
397	Single Family Residence	287	36
398	Single Family Residence	484	36
399	Single Family Residence	145	36
400	Single Family Residence	243	36
401	Single Family Residence	450	36
402	Single Family Residence	279	36
403	Single Family Residence	449	36
404	Single Family Residence	505	36
405	Single Family Residence	425	36
406	Single Family Residence	250	36
407	Single Family Residence	198	36
408	Single Family Residence	157	36
409	Single Family Residence	238	36
410	Single Family Residence	228	36
411	Single Family Residence	233	36
412	Single Family Residence	482	36
413	Single Family Residence	307	36
414	Single Family Residence	371	36
415	Single Family Residence	244	36
416	Single Family Residence	300	36
417	Single Family Residence	366	36
418	Single Family Residence	409	36
419	Single Family Residence	315	36
420	Single Family Residence	337	36
421	Single Family Residence	341	36
422	Single Family Residence	371	36
423	Single Family Residence	451	36
424	Single Family Residence	468	36
425	Single Family Residence	128	36

Table 4-40 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG

Segment Combinations: 3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
426	Single Family Residence	140	36
427	Single Family Residence	172	36
428	Single Family Residence	196	36
429	Single Family Residence	286	36
430	Single Family Residence	365	36
431	Single Family Residence	463	36
432	Single Family Residence	229	36
433	Single Family Residence	340	36
434	Single Family Residence	451	36
435	Single Family Residence	212	36
436	Single Family Residence	338	36
437	Single Family Residence	443	36
458	Single Family Residence	421	43
459	Single Family Residence	505	43
500	Single Family Residence	311	46
501	Single Family Residence	432	46
502	Single Family Residence	363	46
503	Single Family Residence	381	46
504	Single Family Residence	467	46
505	Single Family Residence	380	46
506	Commercial	459	46
507	Commercial	234	46
508	Commercial	276	46
509	Commercial	455	46
510	Single Family Residence	494	46
511	Commercial	263	46
512	Commercial	248	46
513	Commercial	284	46
514	Commercial	104	46
515	Commercial	266	46
516	Single Family Residence	302	46
517	Single Family Residence	367	46
518	Single Family Residence	470	46
519	Single Family Residence	463	46
520	Single Family Residence	346	46
521	Single Family Residence	136	46
522	Single Family Residence	275	46
523	Single Family Residence	269	46
524	Single Family Residence	313	46

Table 4-40 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG

Segment Combinations: 3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
525	Single Family Residence	509	46
526	Single Family Residence	328	46
527	Single Family Residence	293	46
528	Single Family Residence	324	46
529	Single Family Residence	458	46
530	Single Family Residence	458	46
531	Commercial	205	46
613	Single Family Residence	238	57
633	Single Family Residence	289	62
634	Single Family Residence	345	62
635	Single Family Residence	462	62
636	Single Family Residence	388	62
637	Single Family Residence	447	62
638	Single Family Residence	385	62
660	Single Family Residence	340	70
661	Single Family Residence	364	70
662	Single Family Residence	500	70
663	Single Family Residence	408	70
664	Single Family Residence	420	70
665	Single Family Residence	462	70
2001	Cannon Field Airstrip	6,956	22A
2003	Pleasanton Municipal Airport	19,325	62
3001	Other Electronic Installation	404	7
3010	Other Electronic Installation	203	33
3011	Other Electronic Installation	909	46
3016	FM Tower	1,749	70
3018	Other Electronic Installation	1,722	110
4001	TPWD Lone Star Pass Public Hunting Area	0	3
4002	Medina River Natural Area	0	7
4003	Medina River Preserve	0	7
4004	Medina River Greenway Park Trail	0	7
--	41BX676	154	--
5003	Barney Williams Cemetery	900	36
5004	Brite Cemetery	185	46
5007	Gonzales / San Augustin Cemetery	418	57
5009	Palaciosville Cemetery	119	107
--	41AT52	0	--
--	41BX1574	281	--
--	41BX2399	872	--

Table 4-40 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AG

Segment Combinations: 3-7-11-22A-22B-33-36-43-46-57-62-70-78-99-107-108-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
--	41BX2528	568	--
--	41BX530	351	--
--	41BX653	277	--
--	41BX656	0	--
--	41BX658	59	--
--	41BX666	116	--
--	41BX915	820	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41AT65	714	--
--	41AT66	620	--
--	41BX659	329	--
--	AVAR 1	632	--
--	41BX669	559	--
--	41BX533	0	--
--	41BX349	239	--
--	41BX652	0	--
--	41BX988	0	--

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Table 4-41 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AH

Segment Combinations: 1-4-17-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
1	Commercial	460	1
2	Commercial	394	1
3	Commercial	310	1
4	Commercial	136	1
5	Commercial	174	1
6	Commercial	172	1
7	Commercial	303	1
8	Commercial	379	1
9	Single Family Residence	276	1
10	Single Family Residence	354	1
11	Single Family Residence	418	1
12	Single Family Residence	484	1
13	Single Family Residence	441	1
14	Single Family Residence	325	1
15	Single Family Residence	377	1
16	Single Family Residence	434	1
17	Single Family Residence	505	1
18	Single Family Residence	327	1
19	Single Family Residence	445	1
21	Single Family Residence	428	1
32	Single Family Residence	140	4
35	Single Family Residence	115	4
36	Single Family Residence	81	4
37	Single Family Residence	337	4
38	Single Family Residence	304	4
39	Single Family Residence	395	4
40	Single Family Residence	378	4
41	Single Family Residence	238	4
42	Single Family Residence	326	4
43	Single Family Residence	295	4
85	Single Family Residence	269	17
86	Single Family Residence	454	17
88	Single Family Residence	503	17
89	Single Family Residence	321	17
90	Single Family Residence	396	17
91	Single Family Residence	320	17
92	Single Family Residence	213	17
93	Single Family Residence	337	17
94	Single Family Residence	467	17

Table 4-41 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AH

Segment Combinations: 1-4-17-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline¹ (feet)	Nearest Alternative Route Segment²
95	Single Family Residence	325	17
96	Single Family Residence	456	17
97	Single Family Residence	468	17
98	Single Family Residence	329	17
99	Commercial	383	17
100	Single Family Residence	343	17
101	Single Family Residence	347	17
102	Single Family Residence	401	17
103	Single Family Residence	473	17
104	Single Family Residence	448	17
105	Single Family Residence	433	17
106	Single Family Residence	290	17
107	Single Family Residence	350	17
108	Single Family Residence	402	17
109	Single Family Residence	321	17
328	Single Family Residence	296	29
329	Single Family Residence	315	29
330	Single Family Residence	491	29
444	Single Family Residence	228	38
445	Single Family Residence	237	38
446	Single Family Residence	322	38
447	Single Family Residence	363	38
448	Single Family Residence	172	38
449	Single Family Residence	507	38
450	Single Family Residence	324	38
451	Single Family Residence	150	38
452	Single Family Residence	296	38
453	Single Family Residence	293	38
454	Single Family Residence	385	38
455	Single Family Residence	259	38
456	Single Family Residence	174	38
457	Single Family Residence	80	38
464	Single Family Residence	494	38
466	Single Family Residence	305	38
468	Single Family Residence	179	38
469	Single Family Residence	195	38
470	Single Family Residence	328	38
471	Single Family Residence	475	38
472	Single Family Residence	473	38

Table 4-41 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AH

Segment Combinations: 1-4-17-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
473	Single Family Residence	176	38
474	Single Family Residence	186	38
475	Single Family Residence	364	38
476	Single Family Residence	147	38
477	Single Family Residence	314	38
478	Single Family Residence	137	38
479	Single Family Residence	420	38
480	Single Family Residence	475	38
481	Single Family Residence	307	38
482	Single Family Residence	380	38
483	Single Family Residence	239	38
484	Single Family Residence	327	38
485	Single Family Residence	217	38
486	Single Family Residence	179	38
487	Single Family Residence	216	38
488	Single Family Residence	495	38
489	Commercial	507	38
532	Single Family Residence	411	48
533	Single Family Residence	161	48
534	Single Family Residence	179	48
535	Single Family Residence	407	48
536	Single Family Residence	477	48
555	Single Family Residence	358	48
556	Single Family Residence	164	48
557	Single Family Residence	285	48
558	Single Family Residence	130	48
559	Single Family Residence	385	48
569	Single Family Residence	464	48
570	Single Family Residence	455	48
571	Single Family Residence	188	48
572	Single Family Residence	93	48
573	Single Family Residence	329	48
574	Single Family Residence	467	48
575	Single Family Residence	289	48
576	Single Family Residence	228	48
577	Single Family Residence	270	48
578	Single Family Residence	242	48
579	Single Family Residence	140	48
580	Single Family Residence	108	48

Table 4-41 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AH

Segment Combinations: 1-4-17-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
581	Single Family Residence	467	48
582	Single Family Residence	164	48
583	Single Family Residence	369	48
584	Single Family Residence	377	48
585	Single Family Residence	263	48
642	Single Family Residence	442	66
643	Single Family Residence	111	66
673	Single Family Residence	405	72
674	Single Family Residence	167	72
675	Single Family Residence	360	72
676	Single Family Residence	225	72
677	Single Family Residence	255	72
678	Single Family Residence	280	72
679	Single Family Residence	191	72
680	Single Family Residence	189	72
681	Single Family Residence	492	72
682	Single Family Residence	492	72
683	Single Family Residence	424	72
684	Single Family Residence	455	72
741	Single Family Residence	505	104
3017	Other Electronic Installation	1,936	104
3018	Other Electronic Installation	1,648	109
--	41AT263	841	--
--	41BX1838	663	--
--	41BX1855	91	--
--	41BX2528	693	--
--	41BX551	0	--
--	41BX668	383	--
--	41BX871	65	--
--	41BX872	121	--
--	41AT34	452	--
--	41AT42	88	--
--	41AT63	716	--
--	41AT64	960	--
--	41BX345	780	--
--	41BX670	733	--
--	41BX855	511	--
--	41BX856	0	--
--	41BX553	3	--

Table 4-41 Habitable Structures and Other Land Use Features in the Vicinity of Primary Alternative Route AH

Segment Combinations: 1-4-17-29-38-48-63-66-72-84-89-96-104-109-110			
Map Number	Structure or Feature	Approximate Distance from Route Centerline ¹ (feet)	Nearest Alternative Route Segment ²
6002	Ruiz-Herrera House Farm and Ranch	755	4

¹ Due to the potential horizontal inaccuracies of the aerial photography and data utilized, all habitable structures within 510' have been identified.

² Nearest Alternate Route Segment to sensitive cultural resource sites are not provided for protection of the sites.

Appendix D

Figure 2-4 Primary Alternative Segments with Environmental and Land Use Constraints (Topographic Base Map)

This page left blank intentionally.

Appendix E

Figure 4-1 Habitable Structures and Other Land Use Features In the Vicinity of the Primary Alternative Routes (Aerial Base Map)

This page left blank intentionally.